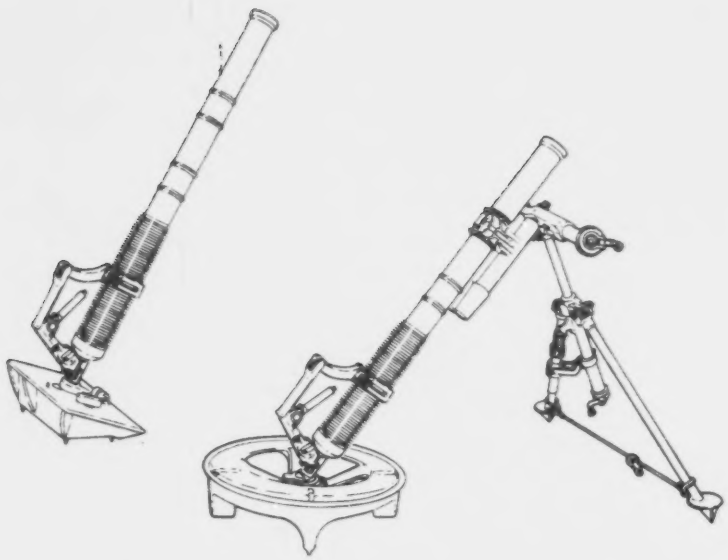
9-1010-223-34&P

TECHNICAL MANUAL

DIRECT SUPPORT AND GENERAL SUPPORT MAINTENANCE MANUAL (INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST)



MORTAR, 60-MM, LIGHTWEIGHT COMPANY
M224
(1010-01-020-5626)

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This copy is a reprint which includes current pages from Changes 1, 2 and 3.

HEADQUARTERS, DEPARTMENT OF THE ARMY

APRIL 1981

0101-11:

READEX FICHE best copy available

WARNING

RADIATION HAZARD

(H_3)

A. RULES AND REGULATIONS. Copies of the following rules and regulations are maintained at HQ, ARRCOM, Rock Island, IL 61299. Copies may be requested, or information obtained by contacting the ARRCOM Radiological Protection Officer (RPO), AUTOVON 793-6982, Commercial (309) 794-5843.

(1) 10CFR Part 19 - Notices, Instructions and Reports to Workers; Inspections.
(2) 10CFR Part 20 - Standards for Protection Against Radiation.
(3) NRC License Conditions, and License Applications.

B. SAFETY PRECAUTIONS. The radioactive material used in this instrument is tritium gas (H3) sealed in glass tubes. It poses no significant hazard to the repairman when intact. This source illuminates the instrumentation for night operations. Tampering with, or removal of the sources in the field is prohibited by Federal law. In the event there is no illumination, notify the local Radiological Protection Officer. Do not attempt to repair or replace the instrument in the field! If skin contact is made with any area contaminated with tritium, immediately wash with nonabrasive soap and water.

C. IDENTIFICATION. Radioactive self-luminous sources are identified by means of radioactive warning labels (see above). These labels should not be defaced or removed, and should be replaced immediately when necessary. Refer to the local RPO or the ARRCOM RPO for instructions on handling, storage, or disposal.

D STORAGE AND SHIPPING. All radioactively illuminated instruments or modules which are defective will be evacuated to a depot maintenance activity. These items must be placed in a plastic bag and packaged in the shipping container from which the replacement was taken before evacuation to a higher echelon is made. Spare equipment must be stored in the shipping container, as received, until installed on the weapon. Storage of these items is recommended to be in an outdoor shed-type storage or unoccupied building.

Before starting an inspection, be sure to clear the weapon. Do not actuate the trigger until the weapon has been cleared. Inspect the bore and to be sure it is empty and free of obstructions.

For information on first aid, see FM 21-11.

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TECHNICAL MANUAL
No. 9-1010-223-34&P

HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington, DC, 1 April 1981

Direct and General Support Maintenance Manual (Including Repair Parts and Special Tools Lists)

MORTAR, 60-MM, LIGHTWEIGHT COMPANY M224 (1010-01-020-5626)

Current as of 27 March 1986 for appendix B

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Mail your letter, DA Form 2028 (Recommended Changes to Publications and Blank forms), or DA Form 2028-2 located in the back of this manual direct to: Commander, US Army Armament, Munitions and Chemical Command, ATTN: AMSMC-MAS, Rock Island, IL 61299-6000. A reply will be furnished to you.

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CHAPTER 1
INTRODUCTION

Section I. GENERAL INFORMATION

1-1 SCOPE.

a. *Type of Manual:* Direct and General Support Maintenance.

b. *Model Number and Equipment Name:* 60-mm Mortar M224

c. *Purpose of Equipment:* Provides a high-angle fire support system for use against a variety of ground targets.

1-2 MAINTENANCE FORMS, RECORDS, AND REPORTS. Department of the Army forms and procedures used for equipment maintenance will be those prescribed by DA PAM 738-750, The Army Maintenance Management System (TAMMS).

1-3. DESTRUCTION OF ARMY MATERIEL TO PREVENT ENEMY USE. Procedures and materials used for the destruction of the mortar in order to prevent enemy use will be found in TM 750-244-7.

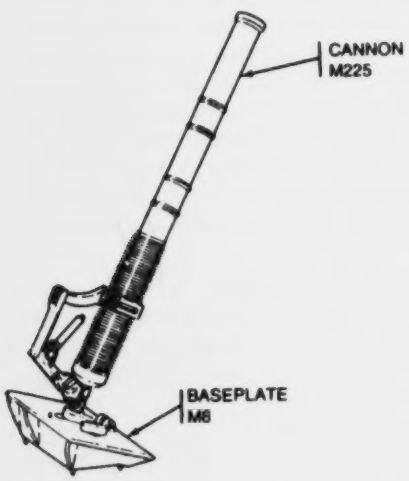
1-4. PREPARATION FOR STORAGE OR SHIPMENT. Requirements for administrative storage are listed in TM 9-1010-223-20&P.

1-5 REPORTING OF EQUIPMENT IMPROVEMENT RECOMMENDATIONS (EIR). If your mortar needs improvement, let us know. Send us an EIR. You, the user, are the only one who can tell us what you don't like about your equipment. Let us know why you don't like the design. Tell us why a procedure is hard to perform. Put it on SF 368 (Quality Deficiency Report). Mail it to us at Commander, US Army Armament, Munitions and Chemical Command, ATTN: AMSMC-QAD, Rock Island, IL 61299-6000. We'll send you a reply.

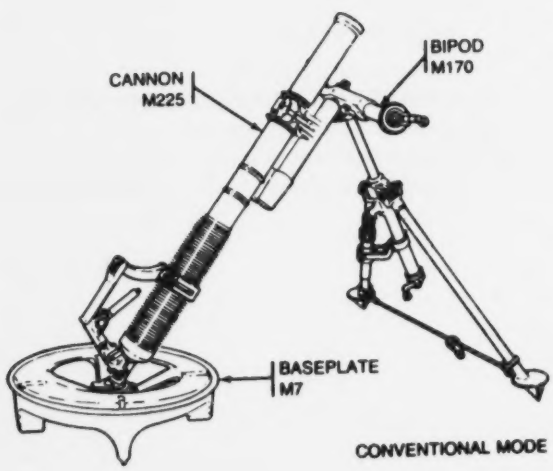
Section II. EQUIPMENT DESCRIPTION AND DATA

1-6. EQUIPMENT CHARACTERISTICS, CAPABILITIES, AND FEATURES.

- Lightweight
- Highly mobile
- Easily maintained
- Self-illuminated fire control
- Hand-held firing possible

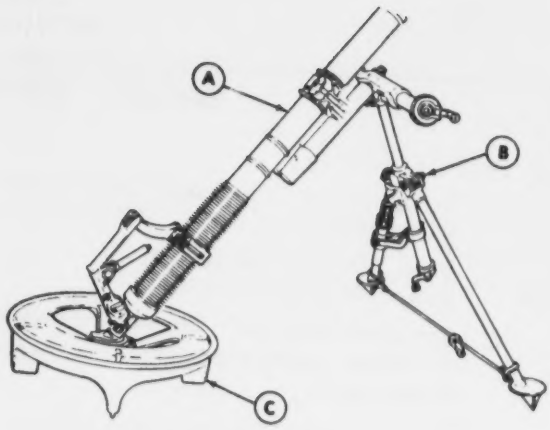


HAND-HELD MODE



CONVENTIONAL MODE

1-7. LOCATION AND DESCRIPTION OF MAJOR COMPONENTS.

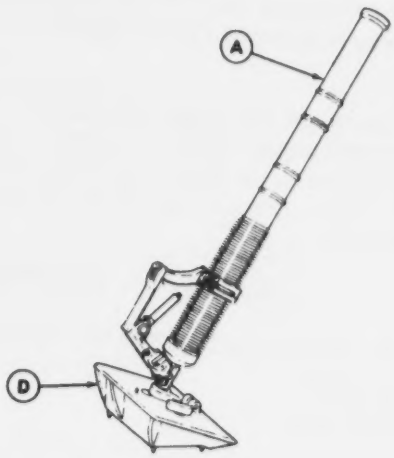


(A) CANNON M225. Fires the cartridge.

(B) BIPOD M170. Supports the cannon in the conventional mode. Provides means to elevate, traverse, and crosslevel the cannon as well as to absorb the shock of recoil.

(C) BASEPLATE M7. Receives the basecap of the cannon, stabilizes the weapon, and helps absorb the shock of recoil in the conventional mode.

(D) BASEPLATE M8. Provides a firing platform for the mortar in the hand-held mode.



1-8. AUTHORIZED EQUIPMENT CONFIGURATION CHANGES. Only authorized Department of the Army modifications may be performed. A list of current applicable modification work orders is published in DA PAM 310-1. The equipment log book should be checked to make sure equipment is in the latest configuration authorized.

1-9. EQUIPMENT DATA.

Weapon Assembled:
- Weight, conventional mode ..... 46.5 lb (21.1 kg)
- Weight, hand-held mode ..... 18.0 lb (8.2 kg)

Cannon M225:
- Weight ..... 14.4 lb (6.5 kg)
- Length ..... 40.0 in. (1.0 m)

Bipod M170:
- Weight ..... 15.2 lb (6.9 kg)
- Length (collapsed) ..... 28.0 in. (0.7 m)
- Azimuth Adjustment ..... 250.0 mils
- Elevation adjustment ..... 800-1511 mils

Baseplate M7:
- Weight ..... 14.4 lb (6.5 kg)

Baseplate M8:
- Weight ..... 3.6 lb (1.6 kg)

CHAPTER 2
MAINTENANCE INSTRUCTIONS

CHAPTER OVERVIEW

This chapter contains information and instructions for the technician to help keep the mortar in good repair. This chapter consists of the following topics:

a. Repair parts, special tools, TMDE, and support equipment
b. Service upon receipt
c. Troubleshooting
d. Maintenance procedures
e. Preembarkation inspection of materiel in units alerted for overseas movement

Section I. REPAIR PARTS, SPECIAL TOOLS, TMDE, AND SUPPORT EQUIPMENT

2-1. COMMON TOOLS AND EQUIPMENT. For authorized common tools and equipment, refer to the Modified Table of Organization and Equipment (MTOE) applicable to your unit.

2-2. SPECIAL TOOLS, TMDE AND SUPPORT EQUIPMENT. There are no special tools or TMDE for this item.

2-3. REPAIR PARTS. Repair parts are listed and illustrated in appendix B of this manual.

Section II. SERVICE UPON RECEIPT

2-4. GENERAL. Normally, it is not necessary to open the shipping container at the direct or general support level if the weapon is new or depot overhauled. The instructions for service upon receipt of materiel are found in TM 9-1010-223-20&P.

Section III. TROUBLESHOOTING

2-5. GENERAL.

a. This section contains troubleshooting information for locating and correcting most of the operating troubles which may develop in the 60-mm mortar M224. Each malfunction for an individual component unit, or system is followed by a list of tests/inspections which will help you to determine the corrective actions to take. You should perform the test/inspections and corrective actions in the order listed.

NOTE

Refer to TM 9-1000-202-14, Evaluation of Cannon Tubes, for borescope and pullover gaging requirements.

b. This manual cannot list all malfunctions that may occur, nor all test/ inspections and corrective actions. If a malfunction is not listed or is not corrected by listed corrective actions, see individual repair section for maintenance instructions on each major assembly.

2-6. TROUBLESHOOTING PROCEDURES. Refer to troubleshooting table for malfunctions, tests, and corrective actions. The symptom index is provided for a quick reference of symptoms covered in the table.

SYMPTOM INDEX

	Troubleshooting Procedure Page
Backlash in elevating mechanism exceeds 1/8 of a turn	2-4
Backlash in traversing mechanism exceeds 1/8 of a turn	2-4
Binding in crossleveling mechanism	2-4
Collar-shock absorber assembly hangs out of battery	2-3
Collar-shock absorber assembly returns immediately to battery position without buffing action	2-3
Crossleveling asjustment cannot be maintained	2-4
Difficulty in elevating weapon	2-4
Difficulty in traversing weapon	2-3
Round fails to fire	2-2
Round fails to slide down tube	2-2

TROUBLESHOOTING

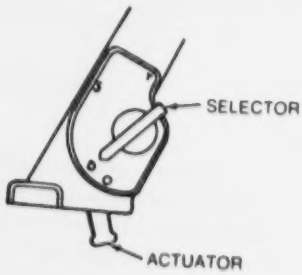
MALFUNCTION
TEST OR INSPECTION
CORRECTIVE ACTION

1. ROUND FAILS TO SLIDE DOWN TUBE.
   Inspect cannon tube bore (see TM 9-1000-202-14).
   Replace cannon.

2. ROUND FAILS TO FIRE.
   Step 1. Place selector in D (drop fire) while watching actuator. If actuator does not move forward, inspect for worn sear, selector, and/or actuator.
   Replace faulty component.

   Step 2. Place selector in D and press on actuator. If selector jumps out of D position, inspect for worn selector and/or detent plunger.
   Replace faulty components.

   Step 32. Place selector in T (trigger) and listen for loud click and watch for actuator to snap forward when trigger is squeezed. If no click or movement is noted, inspect for worn sear, actuator, spring, or plunger.
   Replace faulty component(s).



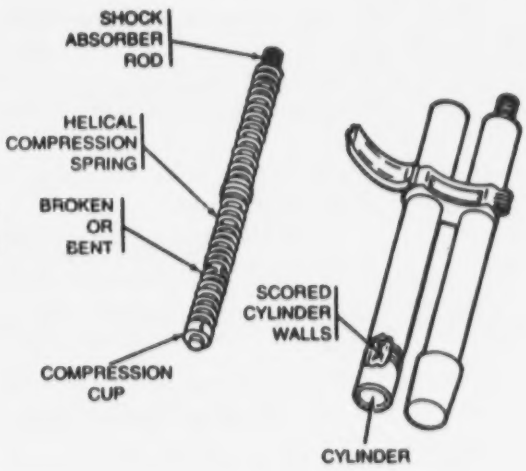
MALFUNCTION
TEST OR INSPECTION
CORRECTIVE ACTION

Step 4. Operate trigger while observing actuator and trigger. If actuator and/or trigger does not return to normal position when trigger is released, inspect spring and sear assembly.
Repair or replace faulty component(s).

3. COLLAR-SHOCK ABSORBER ASSEMBLY HANGS OUT OF BATTERY.

Step 1. Pull each shock absorber rod out fully and release. Shock absorber rod should retract completely.
If it doesn't, go to Step 2.

Step 2 Disassemble and inspect for broken/failed compression helical spring or bent shock absorber rod.
Replace faulty components.



4. COLLAR-SHOCK ABSORBER ASSEMBLY RETURNS IMMEDIATELY TO BATTERY POSITION WITHOUT BUFFING ACTION.

Step 1. Pull each shock absorber rod out fully and release shock absorber rod. Shock absorber rod should retract completely with buffing action.
If it doesn't, go to Step 2.

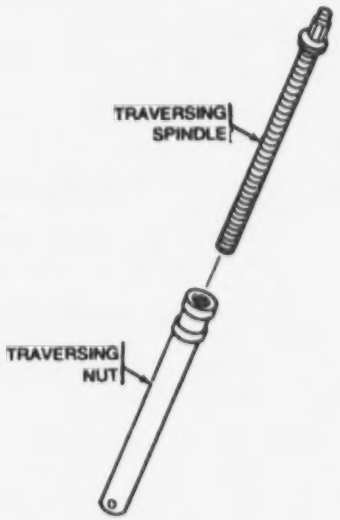
Step 2. Disassemble and inspect compression cup for nicks, cuts and tears, or scored cylinder walls.
Replace faulty components.

5. DIFFICULTY IN TRAVERSING WEAPON.

Step 1. Check for lubrication.
Lubricate traversing spindle and spindle traversing nut (p 2-20).

Step 2. Inspect for burred or bent traversing spindle.
Remove burrs, straighten or replace traversing spindle (p 2-19).

Step 3. Inspect for burred or damaged spindle traversing nut.
Remove burrs or replace damaged traversing nut (p 2-19 and 2-20).

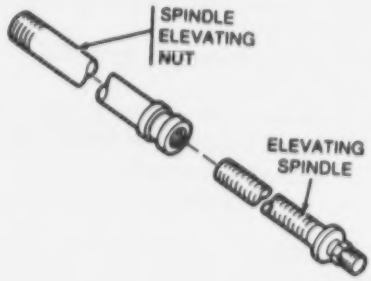


TROUBLESHOOTING (CONT)

MALFUNCTION
TEST OR INSPECTION
CORRECTIVE ACTION

6. BACKLASH IN THE TRAVERSING MECHANISM EXCEEDS 1/8 OF A TURN.
Inspect for worn traversing spindle or traversing nut.
Replace traversing spindle or traversing nut (p 2-20).

7. DIFFICULTY IN ELEVATING WEAPON.
Step 1. Check for lubrication.
Lubricate elevating spindle and elevating nut (p 2-27).



Step 2. Inspect for bent or burred elevating spindle.
Remove burrs. Straighten or replace elevating spindle (p 2-26).

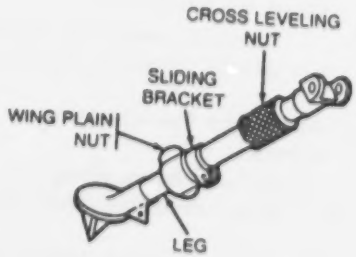
Step 3. Inspect for burred or damaged elevating nut (p 2-26).
Remove burrs or replace damaged elevating nut (p 2-26).

Step 4. Inspect for damaged elevating mechanism housing.
Repair or replace (p 2-26).

8. BACKLASH IN ELEVATING MECHANISM EXCEEDS 1/8 OF A TURN.

Step 1. Inspect for worn elevating spindle and/or worn elevating nut.
Replace elevating spindle and/or elevating nut (p 2-27).

Step 2. Inspect locking retainer for wear around center hole with a 0-1 inch outside micrometer (p 2-26).
Replace locking retainer if thickness is less than 0.121 inch.



9. CROSSLEVELING ADJUSTMENT CANNOT BE MAINTAINED.
Inspect for worn operating parts.
Replace worn parts (p 2-24).

10. BINDING IN CROSSLEVELING MECHANISM.
Inspect for burred, scored, or distorted parts.
Remove burrs and scores. Restore shape or replace items, as required (p 2-23).

Section IV. MAINTENANCE PROCEDURES.

2-7. HANDLE AND FIRING MECHANISM.

This task covers:

a. Disassembly
b. Inspection/Repair
c. Reassembly
d. Test

INITIAL SETUP

Tools
Drive pin punch GGG-P-631
Flat tip screwdriver GGG-S-121
Hand hammer GGG-H-86
Socket head screw key GGG-K-275

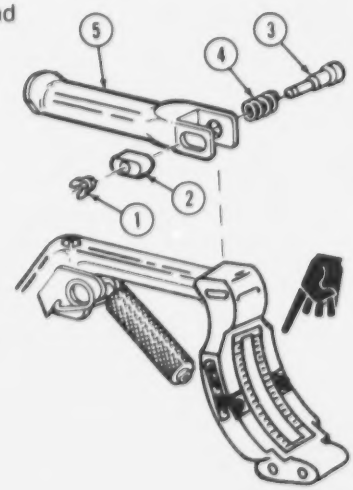
Materials/Parts
Retaining ring 11578981
Spring pin MS16562-226

Equipment Condition
Handle and firing mechanism removed from cannon.

General Safety Instructions
The handle and firing mechanism range indicator contains radioactive material. Handle with care. If range indicator is broken, wash your hands before eating or smoking.

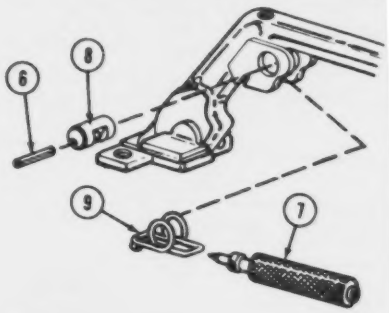
Approximate Time Required
1 hour and 12 minutes.

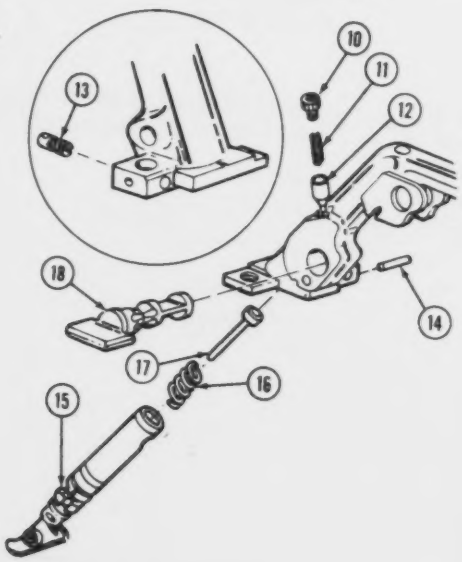
ITEM	ACTION	REMARKS
DISASSEMBLY		
a Retaining ring (1)	While holding onto detent plunger (3) and key (2), pry off retaining ring (1).	The detent is spring-loaded.
b Machine key (2), Detent plunger (3), helical compression spring (4), and carrying handle (5)	Remove key (2), detent plunger (3), and spring (4) and then take off carrying handle (5).	



2-7. HANDLE AND FIRING MECHANISM (CONT).

ITEM	ACTION	REMARKS
DISASSEMBLY (CONT)		
c Spring pin (6)	Drive the spring pin (6) out of the barrel nut and discard.	
d Trigger (7), barrel plain nut (8), and torsion helical spring (9)	Screw the trigger (7) out of the barrel nut (8). Push out the barrel nut and remove spring (9).	
e Self-locking screw (10)	Remove the screw (10) retaining the firing selector detent.	
f Helical compression spring (11) and detent plunger (12)	Turn the handle upside down and shake out the spring (11) and detent (12).	
g Adjusting screw (13)	Remove adjusting screw (13) by screwing in (clockwise) until it comes out on the other side, as shown.	
h Headless straight pin (14)	To remove, push straight pin (14) out from the firing selector side	
i Sear assembly (15) helical compression spring (16), and sear release plunger (17)	Place firing selector in T position and remove sear assembly (15), spring (16), and plunger (17) from bottom of housing.	Sear assembly can only be removed when the firing selector is in the T position.
j Firing selector (18)	Remove firing selector (18).	





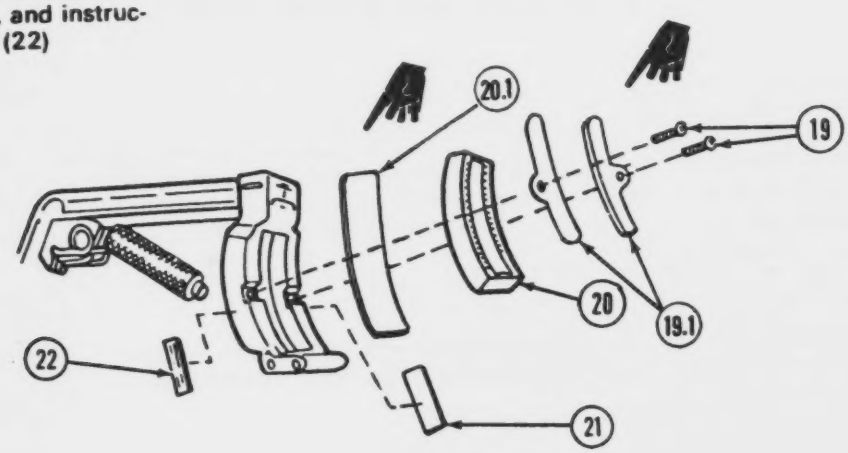
ITEM	ACTION	REMARKS

WARNING

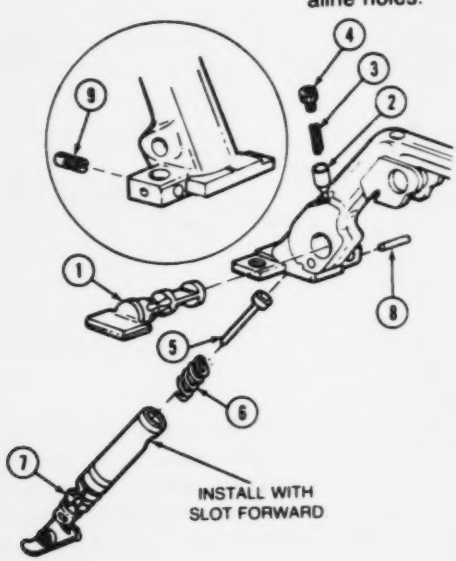
TRITIUM (H 3)

The range indicator (20) contains radioactive material (tritium H 3). Care should be exercised to make sure glass vials are not broken. Refer to radiation hazard warning inside front cover for detailed procedures.

k	**Self-locking screws (19), clip assemblies (19.1), range indicator (20), cushioning pad (20.1), identification plate (21), and instruction plate (22)**	**Remove two self-locking screws (19), two clip assemblies (19.1), range indicator (20), cushioning pad (20.1), identification plate (21), and instruction plate (22).**

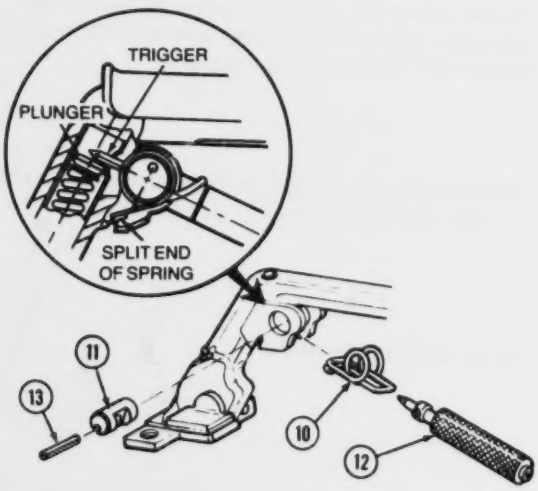


ITEM	ACTION	REMARKS
INSPECTION/REPAIR		
All components	Inspect for; physical damage and deformed or worn parts. Replace spring pin MS16562-226 and all unserviceable items.	Dispose of defective range indicator in accordance with instructions on inside front cover.
REASSEMBLY		
a Firing selector (1)	Install firing selector (1) and set to T position.	Sear assembly cannot be installed unless firing selector is set to T.
b Detent plunger (2), helical compression spring (3), and self-locking screw (4)	Insert detent (2) and spring (3) and install screw (4).	
c Sear release plunger (5), helical compression spring (6), and sear assembly (7)	Put the spring (6), then the plunger (5) inside sear assembly (7) housing. Slide the sear assembly into the handle with the slot facing foward.	The slot in sear assembly housing must face forward in order for the trigger to be installed.
d Headless straight pin (8).	Install the straight pin (8) from the adjusting screw side to retain the sear assembly (7) to the housing.	The sear assembly will require minor positioning to aline holes.
e Adjusting screw (9)	Install adjusting screw (9).	

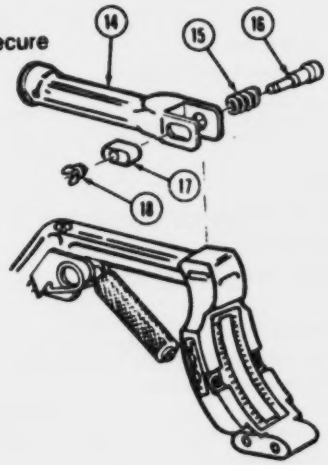


2-7. HANDLE AND FIRING MECHANISM (CONT).

ITEM	ACTION	REMARKS
REASSEMBLY (CONT)		
f Torsion helical spring (10). barrel plain nut (11)	Install spring (10) with its loops up and its split ends against housing and then insert barrel nut (11) with flat recess to front.	FLAT RECESS
g Trigger (12)	Screw trigger (12) into barrel nut (11) with spring over top of trigger. Screw the trigger in completely.	**CAUTION** The trigger must be installed through slot of sear assembly housing and on top of plunger as illustrated. If the trigger is installed incorrectly, interior damage may occur.
h Spring pin (13)	Drive in the spring pin (13) to retain trigger.	Selector must be at T (trigger). Do not place in drop position (D). Do not force anything.



ITEM	ACTION	REMARKS
i Carrying handle (14)	Position carrying handle (14) on the housing.	
j Helical compression spring (15), detent plunger (16), machine key (17), and retaining ring (18)	Install spring (15), detent (16), and key (17) and secure with retaining ring (18).	

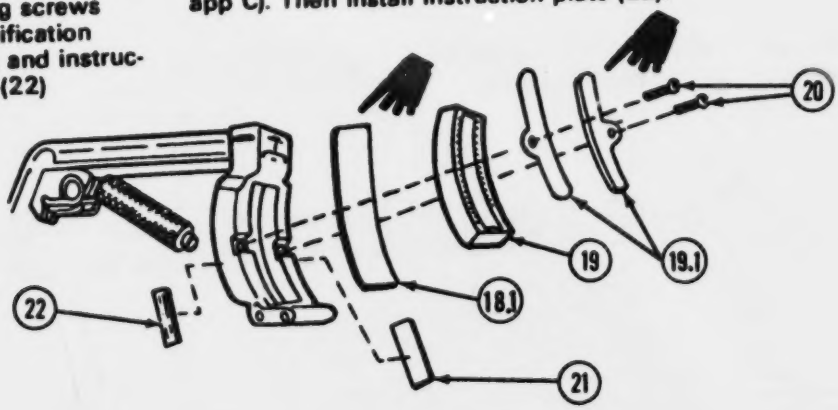


WARNING

TRITIUM (H 3)

The range indicator (19) contains radioactive material (tritium H 3). Care should be exercised to make sure glass vials are not broken. Refer to radiation hazard warning inside front cover for detailed procedures.

k Cushioning pad (18.1), range indicator (19), clip assemblies (19.1), self-locking screws (20), identification plate (21), and instruction plate (22)	**Install cushioning pad (18.1), range indicator (19), and two clip assemblies (19.1) using two self-locking screws (20) and install identification plate (21) using sealing compound (item 13.1, app C). Then install instruction plate (22).**	



TEST

Handle and firing mechanism	Move firing selector through T, S, and D positions. The firing selector should move freely and detent should provide a positive stop in all three positions. Squeeze the trigger in all three positions. The mechanism in the T position will click loudly. In the S and D position it will not click.	

2-8. SEAR ASSEMBLY.

This task covers:

a. Disassembly
b. Inspection/Repair
c. Reassembly

INITIAL SETUP

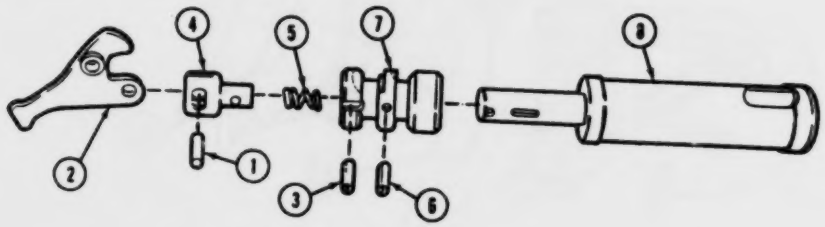
Tools
Drive pin punch GGG-P-831
Hand hammer GGG-H-86
Twist drill GGG-D-751

Equipment Condition
Sear assembly removed from handle and firing mechanism.

Materials/Parts
Two spring pins MS 16562-223

Approximate Time Required
18 minutes

ITEM	ACTION	REMARKS
DISASSEMBLY		
a Headless straight pin (1) and firing pin actuator (2)	Drive out headless straight pin (1) and remove firing pin actuator (2).	
b Spring pin (3), rod end clevis (4), and helical compression spring (5)	Drive out and discard spring pin (3) and remove rod end clevis (4) and spring (5).	
c Spring pin (6), sear (7), and sear housing (8)	Drive out and discard spring pin (6). Remove sear (7) from sear housing (8).	

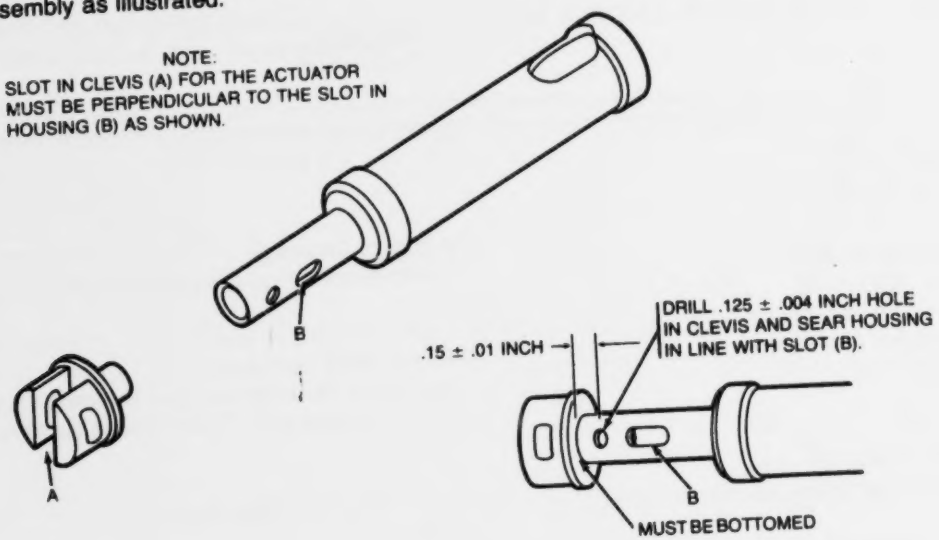


INSPECTION/REPAIR		
a All items	Inspect for: wear, breakage, and any deformities. Replace unserviceable items.	
b Spring pins	Replace two spring pins MS16562-223.	

ITEM	ACTION	REMARKS

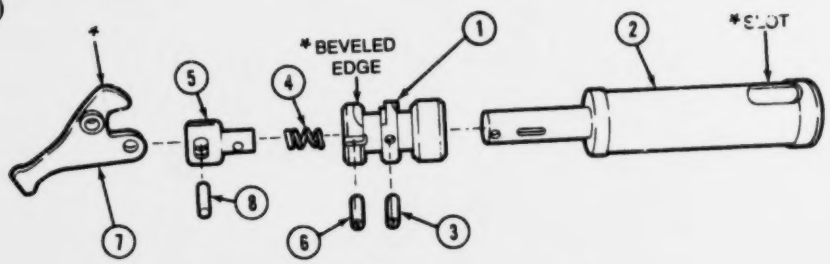
NOTE

If rod end clevis or sear housing is replaced, the new rod end clevis and sear housing must be drilled for assembly as illustrated.


NOTE:
SLOT IN CLEVIS (A) FOR THE ACTUATOR MUST BE PERPENDICULAR TO THE SLOT IN HOUSING (B) AS SHOWN.
B
A
.15 ± .01 INCH
DRILL .125 ± .004 INCH HOLE IN CLEVIS AND SEAR HOUSING IN LINE WITH SLOT (B).
B
MUST BE BOTTOMED

REASSEMBLY

a	Sear (1), sear housing (2), and spring pin (3)	Slide sear (1) on sear housing (2). Aline beveled edge on sear with slot on sear housing. Then install spring pin (3).
b	Helical compression spring (4), rod end clevis (5), and spring pin (6)	Place spring (4) into the sear housing and insert and position rod end clevis (5). Aline the holes and insert spring pin (6).
c	Firing pin actuator (7) and headless straight pin (8)	Install and aline hole of firing pin actuator (7) as illustrated and install headless straight pin (8).



*ALL SURFACES MUST BE ALINED AS SHOWN IN THE ILLUSTRATION.

2-9. COLLAR-SHOCK ABSORBER ASSEMBLY INCLUDING PISTON ASSEMBLY.

This task covers:

a. Disassembly
b. Inspection/Repair
c. Lubrication
d. Reassembly

INITIAL SETUP

Tools
Drive pin punch GGG-P-831
Hand hammer GGG-H-86
Socket head screw key GGG-K-275
Flat tip screwdriver GGG-S-121
Twist drill GGG-D-751

Materials/Parts
Spring pin MS 16562-231
General purpose lubricating oil (item 8, app C)

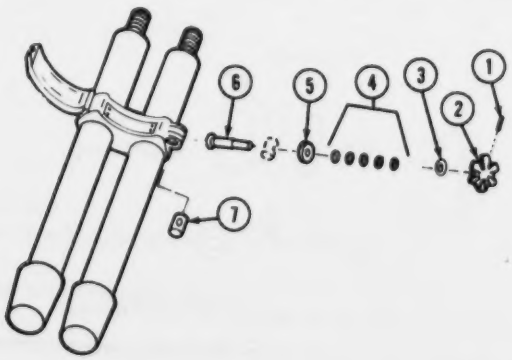
Troubleshooting Reference
See page 2-3.

Equipment Condition
Collar-shock absorber assembly removed from the bipod.

General Safety Instructions
Be careful when removing or installing spring loaded components. Carelessness could result in injury.

Approximate Time Required
1 hour

ITEM	ACTION	REMARKS
DISASSEMBLY		
a Spring pin (1)	Drive spring pin (1) out of knob and discard.	
b Knob (2), flat washer (3), spring tension washers (4), flat washer (5)	Pull the knob (2) and all the washers (3, 4, and 5) off the stud.	
c Stud (6) and barrel plain nut (7)	Screw stud (6) out of barrel nut (7) and push out barrel nut.	



ITEM	ACTION	REMARKS

NOTE

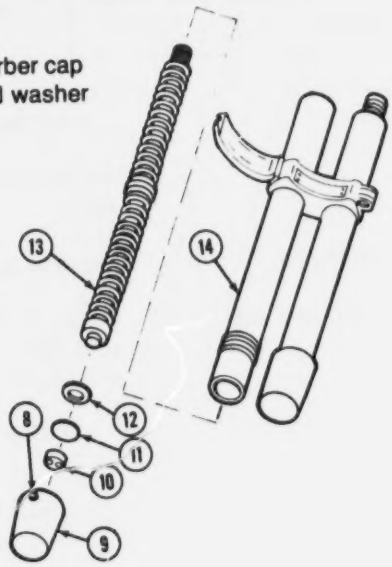
The maintenance procedure is identical for both shock absorbers, therefore repeat the following procedure for the other shock absorber.

d Setscrew (8), shock absorber cylinder cap (9), rubber bumper (10), plain solid disk (11), and flat washer (12)

Loosen setscrew (8) and screw off shock absorber cap (9). Shake rubber bumper (10), disk (11), and washer (12) out of the cap.

e Piston assembly (13) and mortar yoke (14)

Slide piston assembly (13) out of yoke (14).

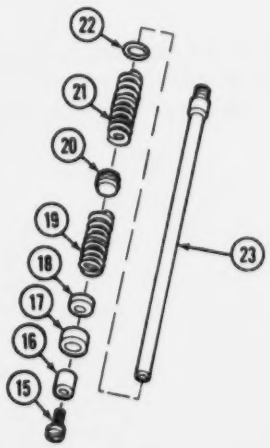


f Machine thread plug (15)

Hold tension on spring and remove plug (15).

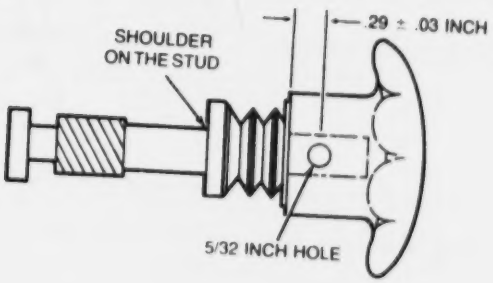
g Sleeve spacer (16) compression cup (17), helical compression spring seat (18), helical compression spring (19), sleeve spacer (20), helical compression spring (21), shock absorber flat washer (22), and shock absorber rod (23)

Slide spacer (16), compression cup (17), spring seat (18), spacer (20), spring (19 and 21), and washer (22) from the shock absorber rod (23).



2-9. COLLAR-SHOCK ABSORBER ASSEMBLY INCLUDING PISTON ASSEMBLY (CONT).

ITEM	ACTION	REMARKS
INSPECTION/REPAIR		
a All items	Inspect for: burrs and worn or damaged parts. Repair by removing burrs and by replacing defective items.	
b Spring pin	Replace spring pin MS16562-231.	
c Knob and stud	Before drilling the 5/32 inch hole in the knob and the stud, assemble the washers and seat them against the shoulder on the stud. Do not compress the washers.	Drilling of knob and stud is necessary only if either is replaced.



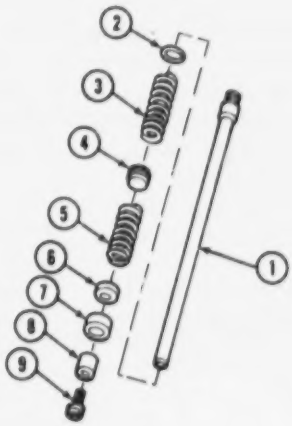
LUBRICATION		
Piston assembly	Soak compression cup in general purpose lubricating oil (item 8, app C) for one hour prior to assembly. Lightly coat shock absorber rods, springs, and spacers with general purpose lubricating oil (item 8, app C). Do not allow grease to plug orifice holes.	

ITEM	ACTION	REMARKS

REASSEMBLY

a Shock absorber rod (1), shock absorber flat washer (2), helical compression spring (3), sleeve spacer (4), helical compression spring (5), helical compression spring seat (6), compression cup (7), and sleeve spacer (8)

Install on shock absorber rod (1) as illustrated.



b Machine thread plug (9)

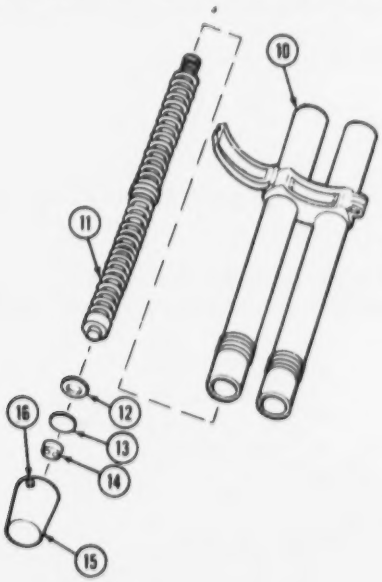
Compress springs and install and tighten plug (9).

c Mortar yoke (10) and piston assembly (11)

Push piston assembly (11) up through cylinder portion of the yoke (10).

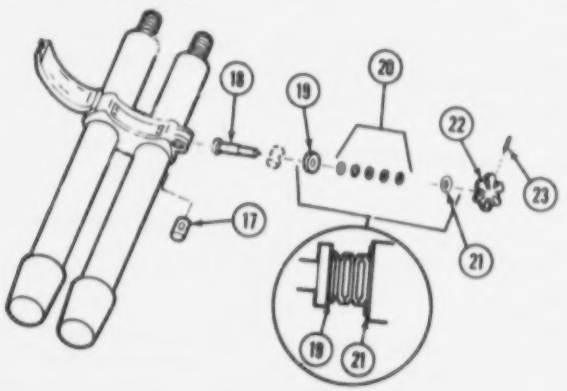
d Flat washer (12), plain solid disk (13), rubber bumper (14), shock absorber cylinder cap (15), and setscrew (16)

Insert rubber bumper (14), disk (13), and washer (12) into shock absorber cap (15). Pull piston assembly from threaded end into the cylinder and screw shock absorber cap on end of cylinder. Tighten setscrew (16).



2-9. COLLAR-SHOCK ABSORBER ASSEMBLY INCLUDING PISTON ASSEMBLY (CONT).

ITEM	ACTION	REMARKS
	REASSEMBLY (CONT)	
Barrel plain nut (17), stud (18), flat washer (19), spring tension washers (20), and flat washer (21)	Slide barrel nut (17) into the yoke housing and screw the stud (18) in completely. Install washers (19, 20, and 21) as illustrated.	
f Knob (22) and spring pin (23)	Slide knob (22) onto the stud and aline the holes. Drive in the spring pin (23).	



2-10. TRAVERSING MECHANISM INCLUDING TRAVERSING HOUSING AND LOCKING RETAINER.

This task covers:

a. Disassembly
b. Inspection/Repair
c. Lubrication
d. Reassembly

INITIAL SETUP

Tools
Socket wrench socket GGG-W-641
Socket wrench handle GGG-W-641
Hand hammer GGG-H-86
Drive pin punch GGG-P-831
Flat tip screwdriver GGG-S-121
Twist drill GGG-D-751
Thread cutting tap GGG-T-330
1.322 x 12 inch adjustable wrench GGG-W-631

Materials/Parts
Self-locking nut MS21083-07
Spring pin MS16562-253
Headless grooved pin MS35675-41
Wiper preformed packing 11579006
Sealing compound (item 13, app C)
Sealing compound (item 14, app C)
Abrasive cloth (item 4, app C)
Automotive and artillery grease (item 7, app C)

Troubleshooting Reference
See page 2-3.

Equipment Condition
Traversing mechanism is removed from bipod assembly.

Approximate Time Required
1 hour and 48 minutes

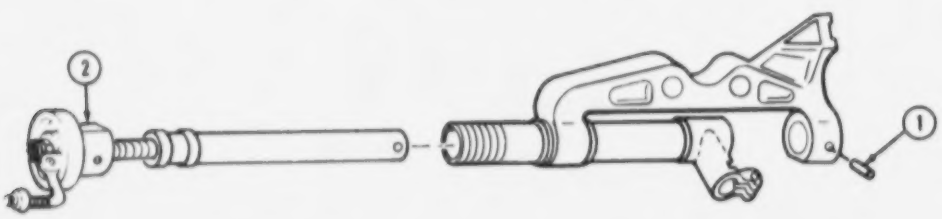
ITEM	ACTION	REMARKS

DISASSEMBLY

CAUTION

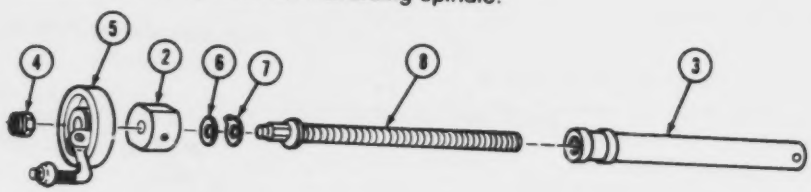
Do not attempt to loosen or remove plastic setscrew in the retainer except according to instructions on page 2-19 paragraph d.

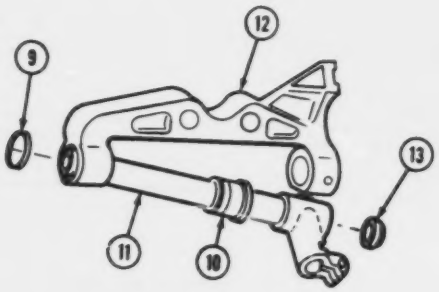
a	Headless grooved pin (1) and retainer (2)	Drive out pin (1). Unscrew retainer (2) and pull handwheel, traversing spindle, and nut out of housing as an assembly.

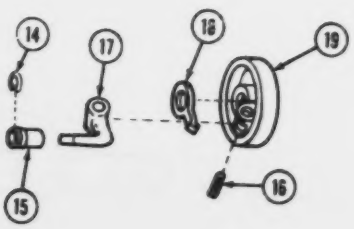


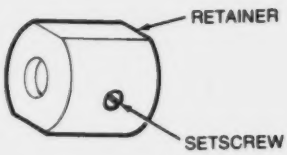
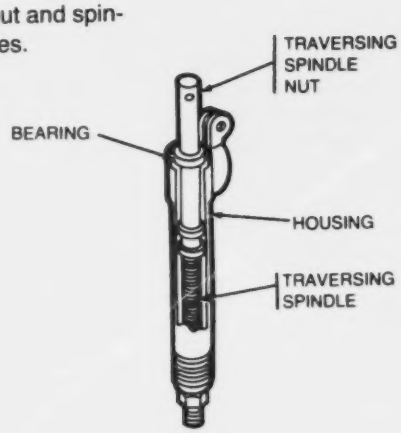
2-10. TRAVERSING MECHANISM INCLUDING TRAVERSING, HOUSING, AND LOCKING RETAINER (CONT).

ITEM	ACTION	REMARKS
DISASSEMBLY (CONT)		
b Spindle traversing nut (3), self-locking nut (4), handwheel group (5), spring tension wave washer (6), traversing key washer (7), and traversing spindle (8)	Screw traversing nut (3) off traversing spindle (8). While holding handwheel, screw off and discard nut (4). Remove handwheel group (5), retainer (2), and two washers (6 and 7) from the traversing spindle.	
c Retaining ring (9), traversing sleeve bearing (10), traversing housing (11), yoke (12), and wiper preformed packing (13)	Remove retaining ring (9) from bearing sleeve (10). Push bearing out of yoke (12). Remove bearing sleeve (10) and housing (11) as an assembly and then separate them. Pry packing (13) out of housing and discard.	
d Retaining ring (14), knob (15), spring pin (16), hand crank (17), flat spring (18), and knob (19)	Remove retaining ring (14) and pull knob (15) off crank (17). Drive out and discard spring pin (16). Remove crank and flat spring (18) from knob (19).	



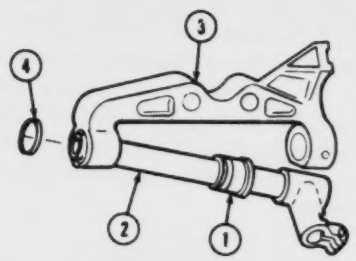


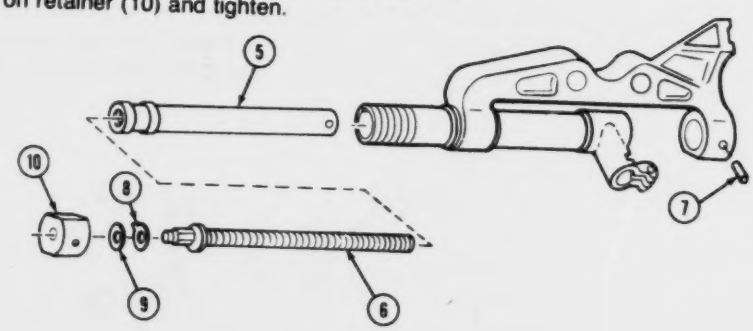


ITEM	ACTION	REMARKS
INSPECTION/REPAIR		
a Threaded components	Inspect for damage. Restore threads or replace defective items.	
b All components	Inspect for: burrs, cracks, and corrosion or wear. Remove burrs and corrosion using abrasive cloth (item 4, app C). Replace defective items.	
c Locking nut, spring pin, headless grooved pin, and preformed packing	Replace.	
d Retainer	When removing the retainer, inspect for positive resistance to turning. If no resistance to turning is felt, drill out setscrew using a 9/64 inch drill and chase threads in the retainer with a 10-24 UNC 3B tap. Using a new setscrew, apply sealing compound (item 14, app C) to threads and screw in until setscrew is flush with the retainer thread minor diameter. Let sealing compound cure for 15 minutes.	
e Traversing housing	Inspect bearing for wear or damage. If bearing is worn or damaged, press it out and discard. Coat housing ID and new bearing OD with sealing compound (item 13, app C). Using traversing nut as a jig, install bearing into housing. Turn bearing at least 1/2 a turn to spread compound. After 5 minutes, remove nut and spindle. Let sealing compound cure for 30 minutes.	Perform only as necessary. 

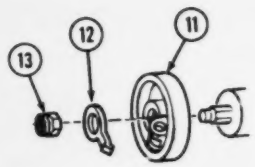
2-10. TRAVERSING MECHANISM INCLUDING TRAVERSING, HOUSING, AND LOCKING RETAINER (CONT).

ITEM	ACTION	REMARKS
LUBRICATION		
a Traversing spindle	Lubricate threads using automotive and artillery grease (item 7, app C).	
b Spindle traversing nut	Lubricate internal threads and outside surfaces using automotive and artillery grease (item 7, app C).	
c Traversing sleeve bearing and traversing housing	Apply light coat of automotive and artillery grease (item 7, app C).	
REASSEMBLY		
a Traversing sleeve bearing (1), traversing housing (2), yoke (3) and retaining ring (4)	Put bearing sleeve (1) on housing (2) and install in yoke (3) as shown. Slip retaining ring (4) on bearing sleeve.	
b Spindle traversing nut (5), traversing spindle (6), and headless grooved pin (7)	Put traversing nut (5) on the traversing spindle (6) and, using the spindle, push nut through housing. Put end of nut in yoke. Aline the holes and drive in pin (7).	
c Traversing key washer (8), spring tension spring wave washer (9), and retainer (10)	Put washer (8) on the traversing spindle. Screw spindle into nut until tab goes in slot. Add spring washer (9). Screw on retainer (10) and tighten.	

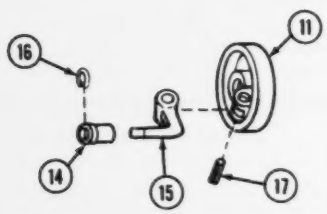




ITEM	ACTION	REMARKS
d Knob (11), flat spring (12), and self-locking nut (13)	Put knob (11) on the traversing spindle. Add the spring (12) and self-locking nut (13) and tighten.	



e Knob (14), hand-crank (15), retaining ring (16), and spring pin (17)	Put knob (14) on crank (15) and secure with retaining ring (16). Put crank assembly on handwheel and secure with the spring pin (17).	



2-11. MORTAR MOUNT LEG.

This task covers:

a. Disassembly
b. Inspection/Repair
c. Lubrication
d. Reassembly

INITIAL SETUP

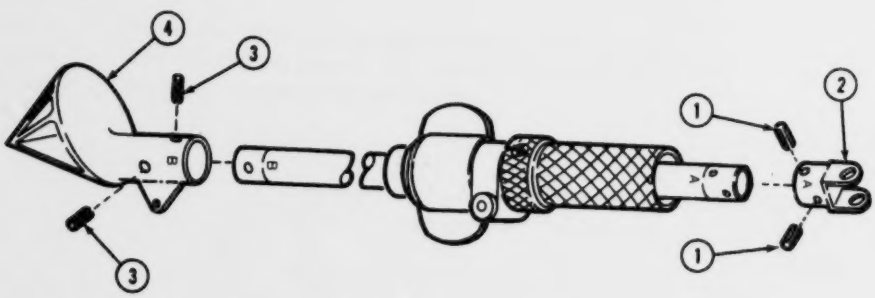
Tools
Drive pin punch GGG-P-831
Drive pin punch GGG-P-831
Hand hammer GGG-H-86
Socket head screw key GGG-K-275

Materials/Parts
Headless grooved pin MS35675-18
Headless grooved pin 11578999
Self-locking screw 11579052
Abrasive cloth (item 4, app C)
General purpose lubricating oil (item 8, app C)

Equipment Condition
Mortar mount leg (left) removed from 60-mm mortar bipod M170.

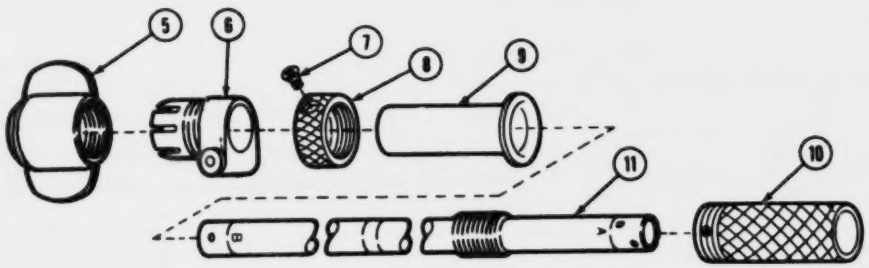
Approximate Time Required
42 minutes

ITEM	ACTION	REMARKS
DISASSEMBLY		
a Headless grooved pin (1) and clevis (2)	Drive out and discard pins (1). Knock clevis (2) off body.	
b Headless grooved pin (3) and foot (4)	Drive out and discard pins (3). Knock foot (4) off body.	



c Wing plain nut (5) and sliding bracket (6)	Screw wing nut (5) off bracket (6). Slide nut and bracket off sleeve.	

ITEM	ACTION	REMARKS
d Self-locking screw (7), crossleveling nut (8), and sleeve (9)	Remove and discard locking screw (7). Screw nut (8) off grip and slide sleeve (9) and nut off leg and separate.	
e Grip (10) and body (11)	Screw grip (10) off and remove from body (11).	



INSPECTION/REPAIR

a All components	Inspect for: physical damage, burrs, cracks, deformation, corrosion, and damaged threads.	
	Remove burrs and corrosion using abrasive cloth (item 4, app C).	Be careful not to alter dimensions. Use files and stone only on noncritical surfaces.
	Replace defective components.	Mortar mount leg is shown completely disassembled because this disassembly is necessary for complete inspection. For replacement purposes part no's 1, 2, 3, 4 and 11 are ordered as a set called the mortar mount leg. Part no's 8, 9 and 10 are ordered as a set called the crossleveling nut.
b Four headless grooved pins and self-locking screw	Replace.	

LUBRICATION

Threaded components	Lubricate using a light coat of general purpose lubricating oil (item 8, app C).

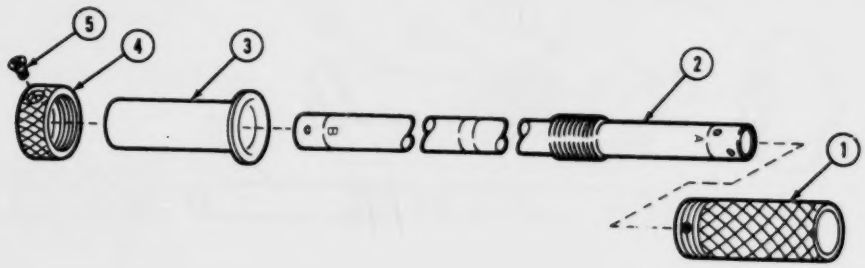
2-11. MORTAR MOUNT LEG (CONT).

ITEM	ACTION	REMARKS

REASSEMBLY

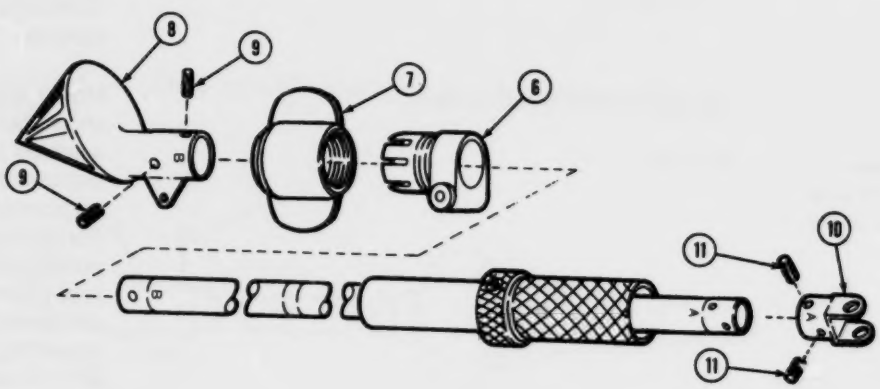
a Grip (1), body (2), sleeve (3), crossleveling nut (4), and self-locking screw (5)

Put grip (1) on A end of body (2) and screw it on the threads. Slide sleeve (3) on B end. Slip nut (4) over sleeve and screw on grip until holes for locking screw (5) line up. Install and tighten locking screw.



b Sliding bracket (6), wing plain nut (7), foot (8), headless grooved pin (9), clevis (10), and headless grooved pin (11)

Slip bracket (6) on sleeve. Install and tighten wing nut (7) on bracket. Add foot (8). Aline B's and install pins (9). Add clevis (10). Aline A's and install pins (11).



2-11.1 MORTAR MOUNT LEG (LEFT AND RIGHT).

This task covers:
a. Disassembly
b. Inspection/Repair
c. Reassembly

INITIAL SETUP

Tools
Drive pin punch GGG-P-831
Drive pin punch GGG-P-831
Hand hammer GGG-H-86
Twist drill GGG-D-751
Upright drilling machine MIL-D-80038
V-blocks GGG-V-191
Vernier calipers GGG-C-111

Materials/Parts
Clevis 11579016
Headless grooved pin MS35675-18
Headless grooved pin 11578999
Abrasive cloth (item 4, app C)
Mortar mount foot 11579666

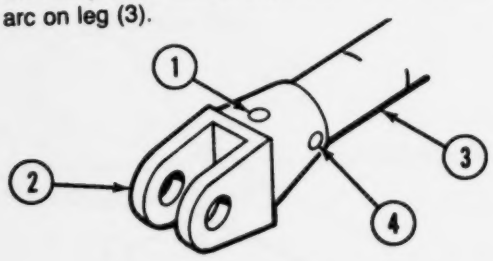
Equipment Condition
Mortar mount leg (left) removed from 60-mm mortar bipod M170.

Approximate Time Required
42 minutes

CAUTION

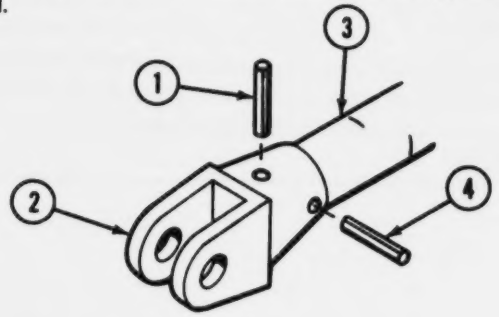
Disassemble and reassemble one end before working on other end of mortar mount leg to prevent misalinement of the leg components.

ITEM	ACTION	REMARKS
	DISASSEMBLY	
a	Headless grooved pin (1), clevis (2), mortar mount leg (3), and headless grooved pin (4).	
	Use vernier calipers set to one inch, and lock jaws securely.	After jaws on calipers have been adjusted and locked, make sure they are not moved.
	Place pivot of calipers on center of pin (1) in clevis (2), and draw an arc on leg (3).	
	Locate the smallest mounting hole in the clevis. Apply tape (item 15, app C) to indicate side of leg for small hole for location later in reassembly.	Small hole should be 9/16 (0.5625) inch and large hole should be 5/8 (0.625) inch diameter.
	Place pivot of calipers on center of pin (4) in clevis (2) and draw an arc on leg (3).	

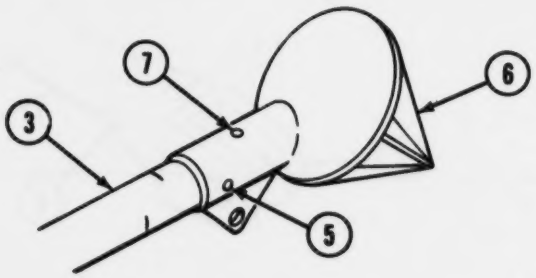


2-11.1 MORTAR MOUNT LEG (LEFT AND RIGHT) (CONT).

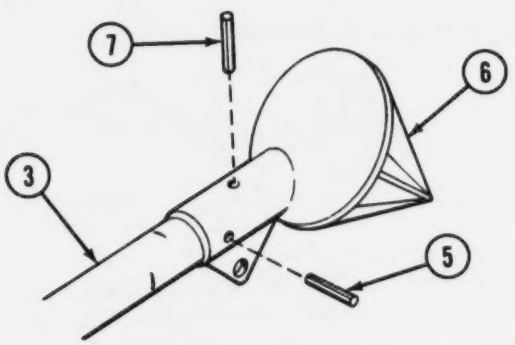
ITEM	ACTION	REMARKS
	DISASSEMBLY (CONT)	
	Place leg (3) onto a set of V-blocks with clamps. Do not secure clamps.	
	Drive out pin (1) and discard.	
	Install 1/8 inch twist drill into upright drill press and tighten.	
	Aline hole from which pin (1) was removed so that a 1/8 (0.125) inch twist drill will pass through without binding. Then secure clamps on V-blocks.	Alinement is required for redrilling during reassembly.
	Drive out pin (4) and discard. Remove clevis (2) and discard.	



b	Headless grooved pin (5), mortar mount foot (6), mortar mount leg (3), and headless grooved pin (7).	Use vernier calipers set to one inch, and lock jaws securely.	After jaws on calipers have been adjusted and locked, make sure they are not moved.
		Place pivot of calipers on center of pin (5) in foot (6), and draw a small arc on leg (3).	
		Apply a small strip of masking tape (item 15, app C) on the leg (3) directly above tab on foot (6).	Alinement is required for reassembly.
		Place pivot of calipers on center of pin (7) in foot (6) and draw a small arc on leg (3).	



ITEM	ACTION	REMARKS
	Place leg (3) onto a set of V-blocks with clamps. Do not secure clamps.	
	Drive out pin (5) and discard.	
	Aline hole from which pin (5) was removed so that a 1/8 (0.125) inch twist drill will pass through it without binding.	Alinement is required for redrilling during reassembly.
	Rotate leg 90 degrees and check hole in tab. It should be nearly vertical. If it is not vertical, scribe a small line onto leg (3) from center of tab slot.	Alinement is required to locate foot properly.
	Drive out and discard pin (7). Remove and discard foot (6).	

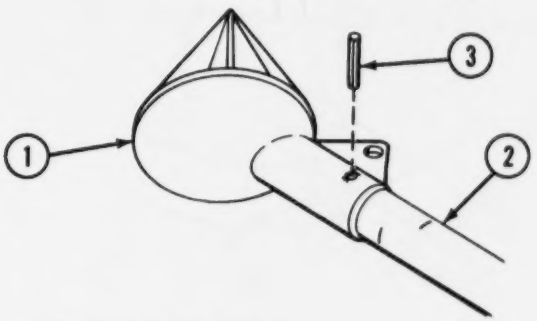


INSPECTION/REPAIR

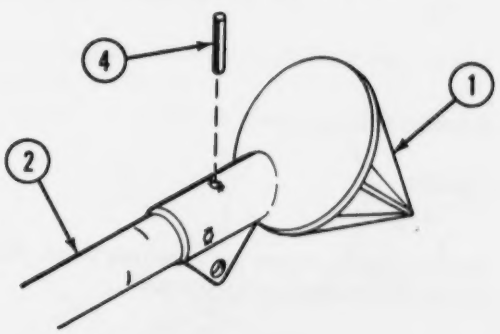
a	All components	Inspect for: physical damage, burrs, cracks, deformation, and corrosion.	
		Remove burrs and corrosion using abrasive cloth (item 4, app C).	Be careful not to alter dimensions. Use files and stone only on noncritical surfaces.
		Replace defective clevis or foot.	
b	Four headless grooved pins.	Replace.	
c	Clevis, mortar mount leg, and mortar mount foot.	Replace mortar mount leg assembly when damage to mortar mount leg is not repairable.	New mortar mount legs are supplied with clevis and foot installed.

2-11.1 MORTAR MOUNT LEG (LEFT AND RIGHT) (CONT).

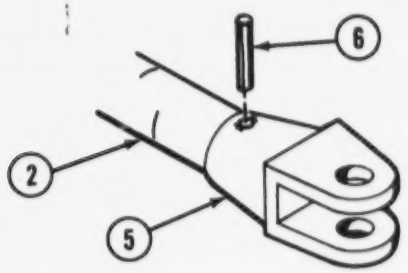
ITEM	ACTION	REMARKS
	REASSEMBLY	
a	Mortar mount foot (1), mortar mount leg (2), headless grooved pin (3), and headless grooved pin (4).	Slide foot (1) onto leg (2) and position tab in line with masking tape applied during disassembly. Make sure leg is all the way in the hole.
		Using the preset calipers, set pivot on end of small arced line and draw small arc on new foot. Repeat from other end of arc and center.
		The center of the three small arcs will be the exact center of drilled hole in the leg.
		Drill a 1/8 (0.125) inch diameter hole in new foot.
		Drive new pin (3) into foot (1) and leg (2).



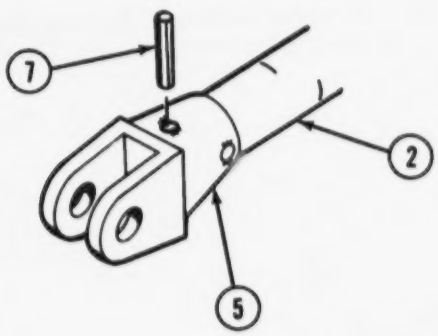
		Rotate leg 90 degrees.
		Using preset calipers, set pivot on end of small arced line and draw small arc on new foot. Repeat from other end and center.
		The center of the small arcs will be the exact center of drilled hole in the leg.
		Drill 1/8 (0.125) inch diameter hole through new foot.
		Drive new pin (4) through new foot (1) and leg (2).



ITEM	ACTION	REMARKS
b Clevis (5), mortar mount leg (2), headless grooved pin (6), and headless grooved pin (7).	Position smallest mounting hole in clevis (5) so that it is on same side as masking tape applied during disassembly.	Alinement of clevis is important so the clevis and foot are positioned properly.
	Slide clevis (5) onto leg (2) until leg fully enters hole in clevis.	
	Using the preset calipers, set pivot on end of small arced line and draw small arc on new foot. Repeat from other end of arc and center.	The center of the small arcs will be the exact center of drilled hole in the leg.
	Drill a 1/8 (0.125) inch diameter hole in new clevis.	
	Drive new pin (6) through clevis (5), and leg (2).	



	Rotate leg 90 degrees. Using preset calipers, set pivot on end of small arced line and draw small arc on new clevis. Repeat from other end and center.	The center of the small arcs will be the exact center of drilled hole in the leg.
	Drill 1/8 (0.125) inch diameter hole through new clevis.	
	Drive new pin (7) through clevis (5) and leg (2).	



2-12. ELEVATING MECHANISM INCLUDING LOCKING RETAINER AND ELEVATING HOUSING.

This task covers:

a. Disassembly
b. Inspection/Repair
c. Lubrication
d. Reassembly

INITIAL SETUP

Tools
Socket wrench socket GGG-W-641
Socket wrench handle GGG-W-641
Flat tip screwdriver GGG-S-121
Thread cutting tap GGG-T-330
Twist drill GGG-D-751
Adjustable wrench GGG-W-631
Micrometer, caliper, outside GGG-C-105

Materials/Parts
Self-locking nut MS21083-D7
Setscrew 11578992
Preformed packing 11579006
Abrasive cloth (item 4, app C)
Automotive and artillery grease (item 7, app C)
Sealing compound (item 13, app C)
Sealing compound (item 14, app C)

Troubleshooting Reference
See page 2-4.

Equipment Condition
Elevating mechanism removed from 60-mm mortar bipod M170.

Approximate Time Required
2 hours and 24 minutes

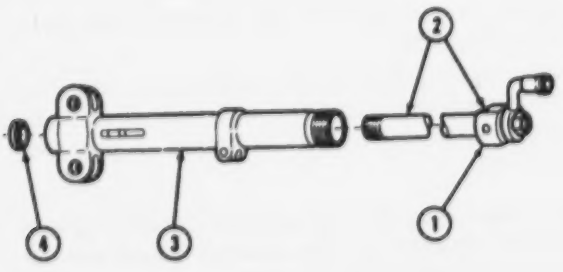
ITEM	ACTION	REMARKS

DISASSEMBLY

CAUTION

Do not attempt to loosen or remove plastic setscrew in the retainer except according to instructions on page 2-26 paragraph b.

a	Locking retainer (1), elevating spindle nut group (2), elevating housing (3), and preformed packing (4)	Unscrew retainer (1). Slide elevating nut group (2) out of housing (3) and pry out and discard packing (4).



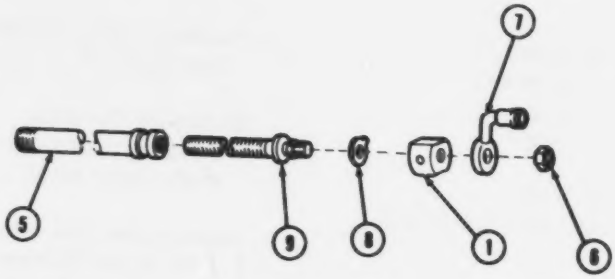
2-12. ELEVATING MECHANISM INCLUDING LOCKING RETAINER AND ELEVATING HOUSING (CONT)

ITEM	ACTION	REMARKS

DISASSEMBLY (CONT)

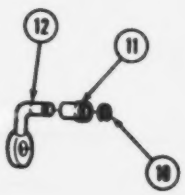
b Elevating spindle nut (5), self-locking nut (6), handle group (7), elevating key washer (8), and elevating spindle (9)

Screw off spindle nut (5). Unscrew and discard nut (6). Remove handle group (7), retainer (1), and washer (8) from spindle (9).



c Retaining ring (10), knob (11), and hand crank (12)

Pry off retaining ring (10) and remove knob (11) from crank (12).



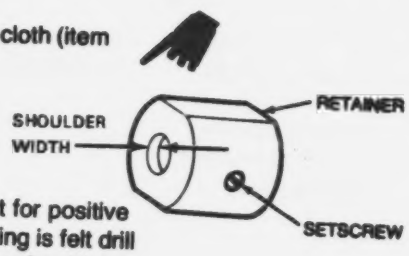
INSPECTION/REPAIR

a All components

Inspect for:
bends, corrosion, cracks, burrs, and wear.

Remove corrosion and burrs using abrasive cloth (item 4, app C).

Replace defective items.



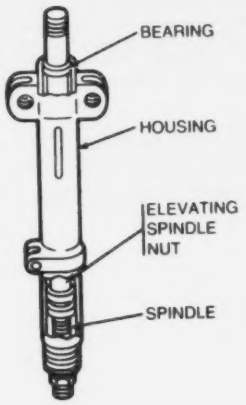
b Locking retainer

When removing the locking retainer, inspect for positive resistance to turning. If no resistance to turning is felt drill out screw using a 9/64 inch drill. Chase threads with a 10-24 UNC-3B tap.

Inspect locking retainer for wear around center hole. Measure thickness with a 0-1 inch outside micrometer. Replace locking retainer if thickness is less than 0.121 inch.

Using a new setscrew, apply compound (item 14, app C) to threads. Screw in until the setscrew is flush with the retainer thread minor diameter. Let cure for 15 minutes.

ITEM	ACTION	REMARKS
	NOTE Do not remove sleeve bearing unless it is unserviceable.	
c Elevating housing assembly	Drive out and discard sleeve bearing. Coat housing ID and new sleeve bearing OD with sealing compound (item 13, app C). Push sleeve bearing into place and turn it at least halfway around to smooth sealing compound. Using spindle and nut to center the sleeve bearing in the elevating housing, sit the elevating housing in a vertical position for 5 minutes. Then remove the spindle and nut from the housing and let the sealing compound cure for 30 minutes.	

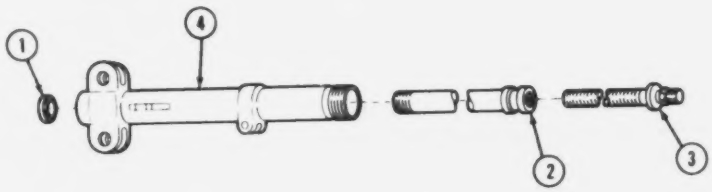


LUBRICATION

a Elevating housing and elevating nut	Apply a light coat of grease (item 7, app C) to the housing ID and spindle nut OD.
b Elevating nut and elevating spindle	Coat threads of nut and spindle with grease (item 7, app C).

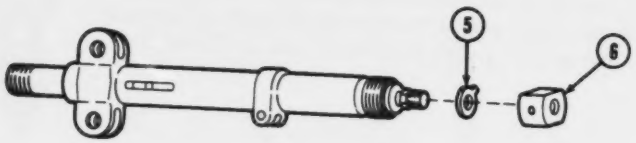
REASSEMBLY

a Preformed packing (1), elevating spindle nut (2), elevating spindle (3), and elevating housing (4)	Install packing (1). Screw spindle nut (2) onto spindle (3) and push them into housing (4).

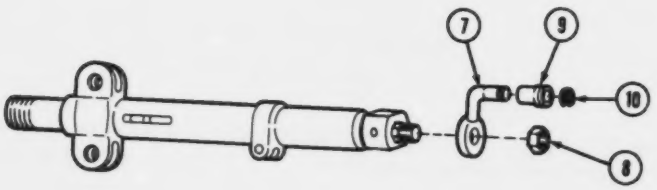


2-12. ELEVATING MECHANISM INCLUDING LOCKING RETAINER AND ELEVATING HOUSING (CON

ITEM	ACTION	REMARKS
	REASSEMBLY (CONT)	
b Elevating key washer (5) and locking retainer (6)	Install washer (5) with tab in the slot. Install and tighten retainer (6).	



c Hand crank (7), self-locking nut (8), knob (9), and retaining ring (10)	Put crank (7) on elevating spindle and screw on nut (8). Put knob (9) on crank and install retaining ring (10).	



2-13. MORTAR BASEPLATE M7.

This task covers repair.

INITIAL SETUP

Equipment Condition
Cannon removed from baseplate and disassembled.
See TM 9-1010-223-20&P.

Approximate Time Required
12 minutes

ITEM	ACTION	REMARKS
REPAIR		
All components	Inspect retainer and cap for burrs and damage.	
	Inspect baseplate for cracks and missing screw thread inserts.	Do not remove or replace serviceable screw thread inserts.
	Replace unserviceable and missing screw thread inserts according to manufacturer's instructions in inserter kit.	

2-14. MORTAR BASEPLATE M8.

This task covers:

a. Disassembly
b. Inspection/Repair
c. Reassembly

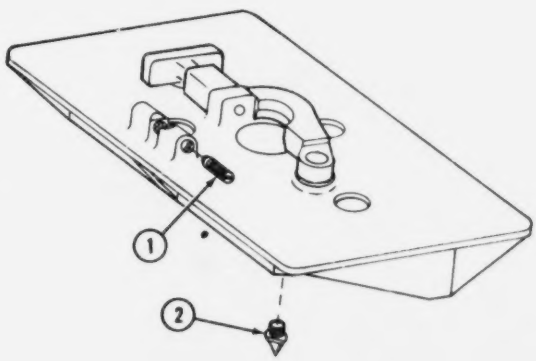
INITIAL SETUP

Tools
Flat tip screwdriver GGG-S-121
Adjustable wrench GGG-W-631

Approximate Time Required
12 minutes

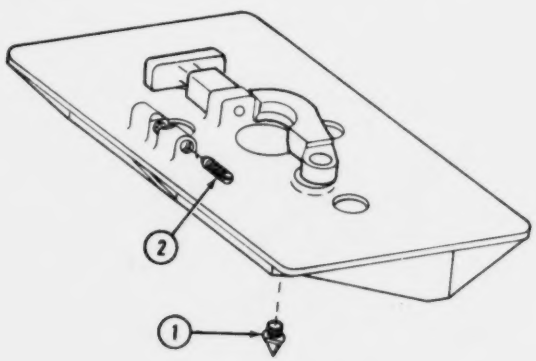
Equipment Condition
Mortar baseplate removed from cannon.

ITEM	ACTION	REMARKS
DISASSEMBLY		
a Two quick release plungers (1)	Remove quick release plungers (1) using flat tip screwdriver.	Remove and discard quick release plunger only if defective.
b Five baseplate points (2)	Remove the five baseplate points (2) using adjustable wrench.	Remove only if defective.



2-14. MORTAR BASEPLATE M8 (CONT).

ITEM	ACTION	REMARKS
INSPECTION/REPAIR		
a Quick release plunger	Inspect for: operation security and missing parts.	
b Baseplate point	Inspect for: damage. Check that baseplate point is not missing or loose. Repair by tightening or replacing baseplate point or screw thread insert.	
c Thread inserts	Replace unserviceable inserts as necessary.	Do not remove serviceable inserts.
REASSEMBLY		
a Five baseplate points (1)	Install the five baseplate points (1) using an adjustable wrench.	Use new baseplate point as required.
b Two quick release plungers (2)	Install the quick release plungers (2) using flat tip screwdriver.	Use new quick release plunger.



2-15. BASEPLATE LATCH.

This task covers:
a. Disassembly
b. Inspection/Repair
c. Lubrication
d. Reassembly

INITIAL SETUP

Tools
Drive pin punch GGG-P-831
Hand hammer GGG-H-86

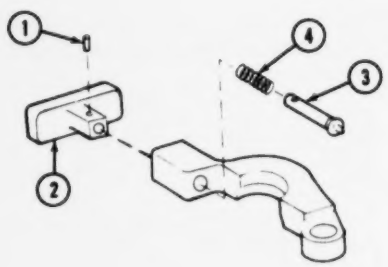
Materials/Parts
Spring pin MS 16562-213
General purpose lubricating oil (item 8, app C)

Equipment Condition
Baseplate latch removed from baseplate.

General Safety Instructions
Be careful when removing and installing spring loaded components. Carelessness could cause injury.

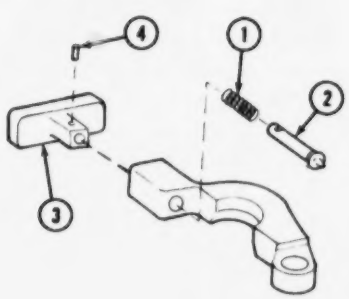
Approximate Time Required
24 minutes

ITEM	ACTION	REMARKS
	DISASSEMBLY	
a Spring pin (1)	Drive out and discard spring pin (1).	
b Latch knob (2), headless latch shoulder pin (3), and helical compression spring (4)	Remove knob (2) from pin (3). Remove pin and spring (4) from latch body.	



2-15. BASEPLATE LATCH (CONT).

ITEM	ACTION	REMARKS
INSPECTION/REPAIR		
All components	Inspect for: set or broken spring and worn, chipped or missing parts. Replace unserviceable components. Replace spring pin MS 16562-213.	
LUBRICATION		
Headless latch shoulder pin and helical compression spring	Lubricate, using general purpose lubricating oil (item 8, app C).	
REASSEMBLY		
Helical compression spring (1), headless latch shoulder pin (2), latch knob (3), and spring pin (4)	Put spring (1) on pin (2). Put spring and pin into latch body. Put knob (3) on pin (2) and line up holes. Drive in spring pin (4).	



Section V. PREEMBARKATION INSPECTION OF MATERIEL IN UNITS ALERTED FOR OVERSEAS MOVEMENT

2-16. PREEMBARKATION INSPECTION OF MATERIEL IN UNITS ALERTED FOR OVERSEAS MOVEMENT.

a. *General.* This inspection is conducted on materiel in alerted units scheduled for overseas duty to be sure that such materiel will not become unserviceable in a relatively short time. It prescribes a higher percentage of remaining usable life in serviceable materiel to meet a specific need beyond minimum serviceability.

b. *Preinspection Points.*

WARNING

Before starting an inspection, be sure to clear the weapon. Do not actuate the trigger until the weapon has been cleared. Inspect the bore to be sure it is empty and free from obstruction.

(1) Equipment must be considered "ready" under the criteria established in the Preventive Maintenance Checks and Services (PMCS) section of TM 9-1010-223-10.

(2) Operator publications applicable to the equipment log book must accompany the equipment. All log book entries must be complete and up-to-date including those covering any repairs, replacements, or adjustment.

(3) Weapons must be complete with all items required by applicable Department of the Army publications, including those in the basic issue items list of TM 9-1010-223-10.

(4) Disqualified weapons and/or fire control equipment which do not qualify for shipment or issue will either be redistributed, repaired, overhauled, or will become a candidate for cannibalization or other disposition as required by existing regulations.

c. *Inspection Points.*

(1) Care must be exercised to use tools that are suitable for the task to be performed in order to avoid unnecessary mutilation of parts and/or damage to tools.

(2) Damaged threads should be repaired by using a thread restorer or by lathe-chasing and by replacing helical inserts.

(3) Damaged surfaces should be restored using materials and tools consistent with tolerances of item being restored.

(a) There are various methods and materials used for removing corrosion. These should be carefully selected in order that surfaces being processed will not be damaged beyond serviceability.

(b) Crocus cloth and fine stones should be used to remove corrosion, burrs, and scores, from polished surfaces. Aluminum oxide abrasive cloth, files, or scrapers are permissible where critical dimensions will not be altered by their use.

(4) Safety must function positively. When in the S position, the weapon must not fire when the trigger is squeezed.

(5) All markings must be legible.

(6) Complete disassembly of a unit is not always necessary in order to make a required repair or replacement. Good judgment should be exercised to keep disassembly and assembly to a minimum.

(7) Exercise caution when removing and installing spring and headless grooved pins to prevent damage to the mechanism or component.

(8) When assembling a unit, replace all spring and headless grooved pins with new pins. Self-locking screws and nuts must be replaced if they were removed.

(9) Springs that are kinked and/or fail to funciton properly must be replaced

(10) During repair the materiel should be kept clean and lubricated before functioning or testing. Do not over-lubricate. Use as little lubricant as necessary for proper functioning.

d. *Specific Criteria.*

(1) Surfaces. A worn or shiny surface is objectionable from the standpoint of visibility when it is capable of reflecting light, as a mirror does. A weapon with a distinct shine on exterior parts will be rejected for overseas shipment.

(2) Mortar M224.

(a) Inspect the mortar tube in accordance with TM 9-1000-202-14.

(b) The mortar tube must have a bore diameter between 2.392 and 2.405 inches to be acceptable for overseas shipment.

(c) Basecap must be free of burrs that interfere with assembly to the socket and must be gastight on the tube.

(d) Firing mechanism and selector must function properly. Range indicator must be illuminated.

(3) Bipod M170.

(a) All movable elements must perform smoothly without binding.

(b) Elevating, cross-leveling, and traversing mechanisms which bind are not acceptable.

(c) Bipod legs should be straight and feet secure to legs. Sliding bracket locking nut must function properly.

(4) Baseplate M7 and M8.

(a) Baseplates must not be cracked. Minor bends are acceptable.

(b) Install cannon to baseplates. Check clearance and ease of function.

(c) Baseplate M8 latch must function smoothly.

APPENDIX A
REFERENCES

A-1. TECHNICAL MANUALS.

TM 9-1000-202-14	Evaluation of Cannon Tubes
TM 9-1010-223-10	Operator's Manual: Mortar, Lightweight Company 60-mm, M224 (1010-01-020-5626)
TM 9-1010-223-20&P	Organizational Maintenance Manual (Including Repair Parts and Special Tools List): Mortar, 60-mm, Lightweight Company M224 (1010-01-020-5626)
TM 9-1240-386-34&P	Direct and General Support Maintenance Manual Including Repair and Special Tools List (Includes Depot Maintenance Repair Parts and Special Tools) Mount, Telescope 1240-01-050-5588 (Part of M64 Sight Unit)
TM 750-244-7	Procedures for Destruction of Equipment in Federal Supply Classifications 1000, 1005, 1010, 1015, 1020, 1025, 1030, 1055, 1090, and 1095 to Prevent Enemy Use

A-2. FIELD MANUAL.

FM 21-11	First Aid for Soldiers

A-3. OTHER PUBLICATIONS.

DA PAM 738-750	The Army Maintenance Management System (TAMMS)

APPENDIX B
DIRECT AND GENERAL SUPPORT MAINTENANCE REPAIR PARTS AND SPECIAL TOOLS LIST

Section I. INTRODUCTION

B-1. SCOPE. This RPSTL lists and authorizes spares and repair parts; special tools; special test, measurement, and diagnostic equipment (TMDE); and other special support equipment required for performance of direct support and general maintenance of the M224 60mm Mortar. It authorizes the requisitioning, issue, and disposition of spares, repair parts and special tools indicated by the Source, Maintenance and Recoverability (SMR) codes.

B-2. GENERAL. In addition to Section I, Introduction, this Repair Parts and Special Tools List is divided into the following sections:

a. *Section II. Repair Parts List.* A list of spares and repair parts authorized by this RPSTL for use in the performance of maintenance. The list also includes parts which must be removed for replacement of the authorized parts. Parts lists are composed of functional groups in ascending alphanumeric sequence, with the parts in each group listed in ascending figure and item number sequence. Bulk materials are listed in item name sequence. Repair parts kits are listed separately in their own functional group within section II. Repair parts for repairable special tools are also listed in this section. Items listed are shown on the associated illustration(s)/figure(s).

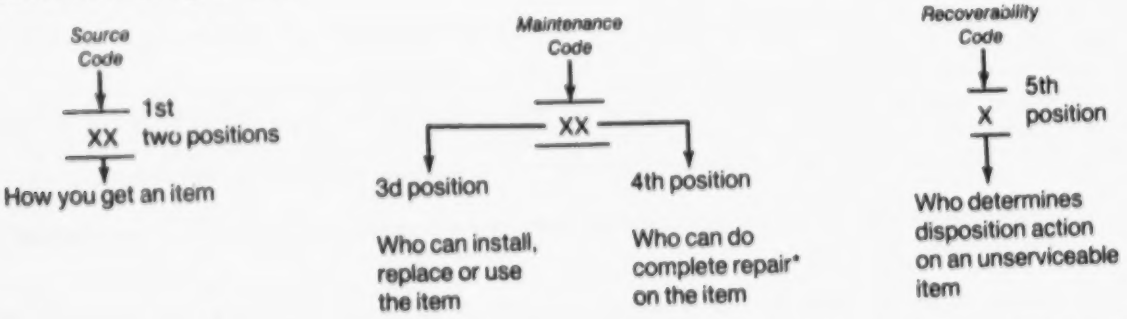
b. *Section III. Special Tools List.* Not applicable.

c. *Section IV. National Stock Number and Part Number Index.* A list, in National item identification number (NIIN) sequence, of all National stock numbered items appearing in the listing, followed by a list in alphanumeric sequence of all part numbers appearing in the listings. National stock numbers and part numbers are cross-referenced to each illustration figure and item number appearance.

B-3. EXPLANATION OF COLUMNS (SECTIONS II AND III).

a. *ITEM NO. (Column (1)).* Indicates the number used to identify items called out in the illustration.

b. *SMR CODE (Column (2)).* The Source, Maintenance, and Recoverability (SMR) code is a 5-position code containing supply/requisitioning information, maintenance category authorization criteria, and disposition instruction, as shown in the following breakout:



*Complete Repair: Maintenance capacity, capability, and authority to perform all corrective maintenance tasks of the "Repair" function in a use/user environment in order to restore serviceability to a failed item.

(1) Source code. The source code tells you how you get an item needed for maintenance, repair, or overhaul of an end item/equipment. Explanations of source codes follow:

Code	*Explanation*
PA PB PC** PD PE PF PG	Stocked items; use the applicable NSN to request/requisition items with these source codes. They are authorized to the category indicated by the code entered in the 3d position of the SMR code. **NOTE: Items coded PC are subject to deterioration.
KD KF KB	Items with these codes are not to be requested/requisitioned individually. They are part of a kit which is authorized to the maintenance category indicated in the 3d position of the SMR code. The complete kit must be requisitioned and applied.
MO-(Made at org/ AVUM Level) MF-(Made at DS/ AVIM Level) MH-(Made at GS Level) ML-(Made at Specialized Repair Act (SRA) MD-(Made at Depot)	Items with these codes are not to be requested/requisitioned individually. They must be made from bulk material which is identified by the part number in the DESCRIPTION AND USABLE ON CODE (UOC) column and listed in the bulk material group in the repair parts list in this RPSTL. If the item is authorized to you by the 3d position code of the SMR code, but the source code indicates it is made at a higher level, order the item from the higher level of maintenance.
AO-(Assembled by org/AVUM Level) AF-(Assembled by DS/AVIM Level) AH-(Assembled by GS Level) AL-(Assembled by SRA) AD-(Assembled by Depot)	Items with these codes are not to be requested/requisitioned individually. The parts that make up the assembled item must be requisitioned or fabricated and assembled at the level of maintenance indicated by the source code. If the 3d position code of the SMR code authorizes you to replace the item, but the source code indicates the item is assembled at a higher level, order the item from the higher level of maintenance.

XA - Do not requisition an "XA" -coded item. Order its next higher assembly. (Also, refer to the NOTE below.)

XB - If an "XB" item is not available from salvage, order it using the FSCM and part number given.

XC - Installation drawing, diagram, instruction sheet, field service drawing, that is identified by manufacturer's part number.

XD - Item is not stocked. Order an "XD" -coded item through normal supply channels using the FSCM and part number given, if no NSN is available.

NOTE

Cannibalization or controlled exchange, when authorized, may be used as a source of supply for items with the above source codes, except for those source coded "XA" or those aircraft support items restricted by requirements of AR 700-42.

(2) Maintenance code. Maintenance codes tell you the level(s) of maintenance authorized to USE and REPAIR support items. The maintenance codes are entered in the third and fourth positions of the SMR code as follows:

(a) The maintenance code entered in the third position tells you the lowest maintenance level authorized to remove, replace, and use an item. The maintenance code entered in the third position will indicate authorization to one of the following levels of maintenance:

Code	*Application/Explanation*
C	Crew or operator maintenance done within organizational or aviation unit maintenance.
0	Organizational or aviation unit category can remove, replace, and use the item.
F	Direct support or aviation intermediate level can remove, replace, and use the item.
H	General support level can remove, replace, and use the item.
L	Specialized repair activity can remove, replace, and use the item.
D	Depot level can remove, replace, and use the item.

(b) The maintenance code entered in the fourth position tells you whether or not the item is to be repaired and identifies the lowest maintenance level with the capability to do complete repair (i.e., perform all authorized repair functions).

NOTE

Some limited repair may be done on the item at a lower level of maintenance, if authorized by the Maintenance Allocation Chart (MAC) and SMR codes.

This position will contain one of the following maintenance codes:

Code	*Application/Explanation*
O	Organizational or aviation unit is the lowest level that can do complete repair of the item.
F	Direct support or aviation intermediate is the lowest level that can do complete repair of the item.
H	General support is the lowest level that can do complete repair of the item.
L	Specialized repair activity (designate the specialized repair activity) is the lowest level that can do complete repair of the item.
D	Depot is the lowest level that can do complete repair of the item.
Z	Nonreparable. No repair is authorized.
B	No repair is authorized. No parts or special tools are authorized for the maintenance of a "B" coded item. However, the item may be reconditioned by adjusting, lubricating, etc., at the user level.

(3) Recoverability code. Recoverability codes are assigned to items to indicate the disposition action on unserviceable items. The recoverability code is entered in the fifth position of the SMR code as follows:

Recoverability Codes	*Application/Explanation*
Z	- Nonreparable item. When unserviceable, condemn and dispose of the item at the level of maintenance shown in 3d position of SMR code.
O	- Reparable item. When uneconomically reparable, condemn and dispose of the item at organizational or aviation unit level.
F	- Reparable item. When uneconomically reparable, condemn and dispose of the item at the direct support or aviation intermediate level.
H	- Reparable item. When uneconomically reparable, condemn and dispose of the item at the general support level.
D	- Reparable item. When beyond lower level repair capability, return to depot. Condemnation and disposal of item not authorized below depot level.
L	- Reparable item. Condemnation and disposal not authorized below specialized repair activity (SRA).
A	- Item requires special handling or condemnation procedures because of specific reasons (e.g., precious metal content, high dollar value, critical material, or hazardous material). Refer to appropriate manuals/directives for specific instructions.

c. *FSCM (Column (3)).* The Federal Supply Code for Manufacturer (FSCM) is a 5-digit numeric code which is used to identify the manufacturer, distributor, or Government agency, etc., that supplies the item.

d. *PART NUMBER (Column (4)).* Indicates the primary number used by the manufacturer (individual, company, firm, corporation, or Government activity), which controls the design and characteristics of the item by means of its engineering drawings, specifications standards, and inspection requirements to identify an item or range of items.

NOTE

When you use an NSN to requisition an item, the item you receive may have a different part number from the part ordered.

e. *DESCRIPTION AND USABLE ON CODE (UOC) (Column (5)).* This column includes the following information:

(1) The Federal item name and, when required, a minimum description to identify the item.

(2) Items that are included in kits and sets are listed below the name of the kit or set.

(3) Spare/repair parts that make up an assembled item are listed immediately following the assembled item line entry.

(4) The statement "END OF FIGURE" appears just below the last item description in column 5 for a given figure in both section II and section III.

f. *QTY (Column (6)).* The QTY (quantity per figure column) indicates the quantity of the item used in the breakout shown on the illustration figure, which is prepared for a functional group, subfunctional group, or an assembly. A "V" appearing in this column in lieu of a quantity indicates that the quantity is variable and the quantity may vary from application to application.

B-4. EXPLANATION OF COLUMNS (SECTION IV).

a. *NATIONAL STOCK NUMBER (NSN) INDEX.*

(1) STOCK NUMBER column. This column lists the NSN by National item identification number (NIIN) sequence. The NIIN consists of the last nine digits of the NSN (i.e., 5385-01-574-1476).

NSN: 5385-01-574-1476
NIIN: 574-1476

When using this column to locate an item, ignore the first 4 digits of the NSN. However, the complete NSN should be used when ordering items by stock number.

(2) FIG. column. This column lists the number of the figure where the item is identified/located. The figures are in numerical order in section II and section III.

(3) ITEM column. The item number identifies the item associated with the figure listed in the adjacent FIG. column. This item is also identified by the NSN listed on the same line.

b. *PART NUMBER INDEX.* Part numbers in this index are listed by part number in ascending alphanumeric sequence (i.e., vertical arrangement of letter and number combination which places the first letter or digit of each group in order A through Z, followed by the numbers 0 through 9 and each following letter or digit in like order).

(1) FSCM column. The Federal Supply Code for Manufacturer (FSCM) is a 5-digit numeric code used to identify the manufacturer, distributor, or Government agency, etc., that supplies the item.

(2) PART NUMBER column. Indicates the primary number used by the manufacturer (individual, firm, corporation, or Government activity), which controls the design and characteristics of the item by means of its engineering drawings, specifications standards, and inspection requirements to identify an item or range of items.

(3) STOCK NUMBER column. This column lists the NSN for the associated part number and manufacturer identified in the PART NUMBER and FSCM columns to the left.

(4) FIG. column. This column lists the number of the figure where the item is identified/located in sections II and III.

(5) ITEM column. The item number is that number assigned to the item as it appears in the figure referenced in the adjacent figure number column.

B-5. SPECIAL INFORMATION.

a. *Assembly Instructions.* Detailed assembly instructions for items source coded to be assembled from component spare/repair parts are found in . Items that make up the assembly are listed immediately following the assembly item entry or reference is made to an applicable figure.

b. *Kits.* Line item entries for repair parts kits appear in a group in section II (see table of contents). Number index and the bulk material list in section II.

c. *Associated Publications.* The publication(s) listed below pertain to TM 9-1010-223 34&P and its components:

Publication	*Short Title*
TM 9-1010-223-10	MORTAR, 60-MM, LIGHTWEIGHT COMPANY
TM 9-1010-223-20&P	MORTAR, 60-MM, LIGHTWEIGHT COMPANY

B-6. HOW TO LOCATE REPAIR PARTS.

a. *When National Stock Number or Part Number is Not Known:*

(1) First. Using the table of contents, determine the assembly group or subassembly group to which the item belongs. This is necessary since figures are prepared for assembly groups and subassembly groups, and listings are divided into the same groups.

(2) Second. Find the figure covering the functional group or subfunctional group to which the item belongs.

(3) Third. Identify the item on the figure and note the item number.

(4) Fourth. Refer to the Repair Parts List for the figure to find the part number for the item number noted on the figure.

(5) Fifth. Refer to the Part Number Index to find the NSN, if assigned.

b. *When National Stock Number or Part Number is Known:*

(1) First. Using the index of National stock numbers and part numbers, find the pertinent National stock number or part number. The NSN index is in National Item Identification Number (NIIN) sequence (see B-4a(1)). The part numbers in the PART NUMBER INDEX are listed in ascending alphanumeric sequence (see B-4b). Both indexes cross-reference you to the illustration figure and item number of the item you are looking for.

(2) Second. After finding the figure and item number, verify that the item is the one you're looking for, then locate the item number in the repair parts list for the figure.

B-7. ABBREVIATIONS. Not applicable.

Section II. REPAIR PARTS LIST

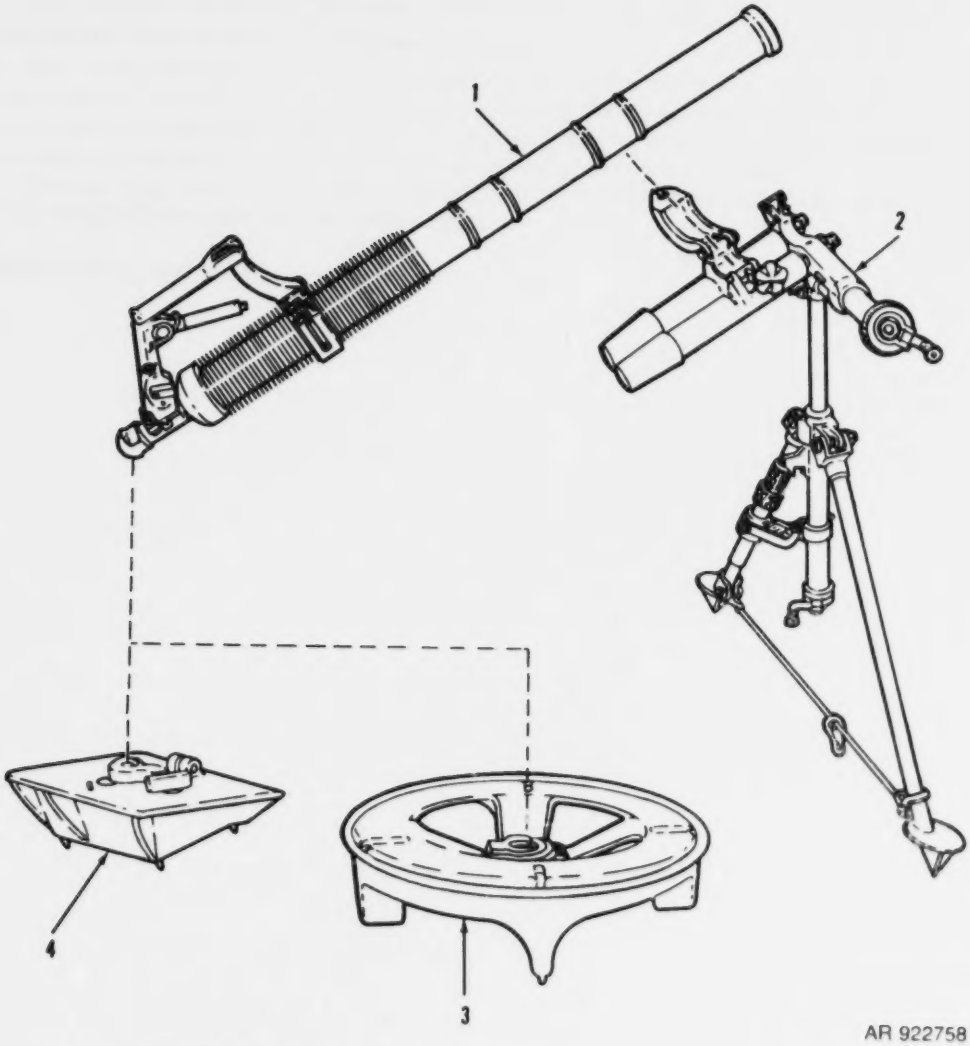


Figure B-1. 60-mm Mortar, M224 (lightweight company) 11579000

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES(UOC)	(6) QTY	
				GROUP 00 60-MM MORTAR, M224 (LIGHTWEIGHT COMPANY) 11579000		
				FIG.B-1 60-MM MORTAR, M224 (LIGHTWEIGHT COMPANY)		
1	AOCFA	19206	11579080	CANNON, 60-MM MORTAR:M225 (SEE FIG.B-2 FOR ASSEMBLY BREAKDOWN).....	1	■
2	AOOFF	19206	11579090	BIPOD,60MM MORTAR :M170 (SEE FIG.B-5 FOR ASSEMBLY BREAKDOWN).....	1	
3	PAOFF	19206	11579070	BASEPLATE,MORTAR M7 (SEE FIG.B-15 FOR ASSEMBLY BREAKDOWN).....	1	■
4	PAOFF	19206	11578990	BASEPLATE,MORTAR M8 (SEE FIG.B-16 FOR ASSEMBLY BREAKDOWN).....	1	■
				END OF FIGURE		

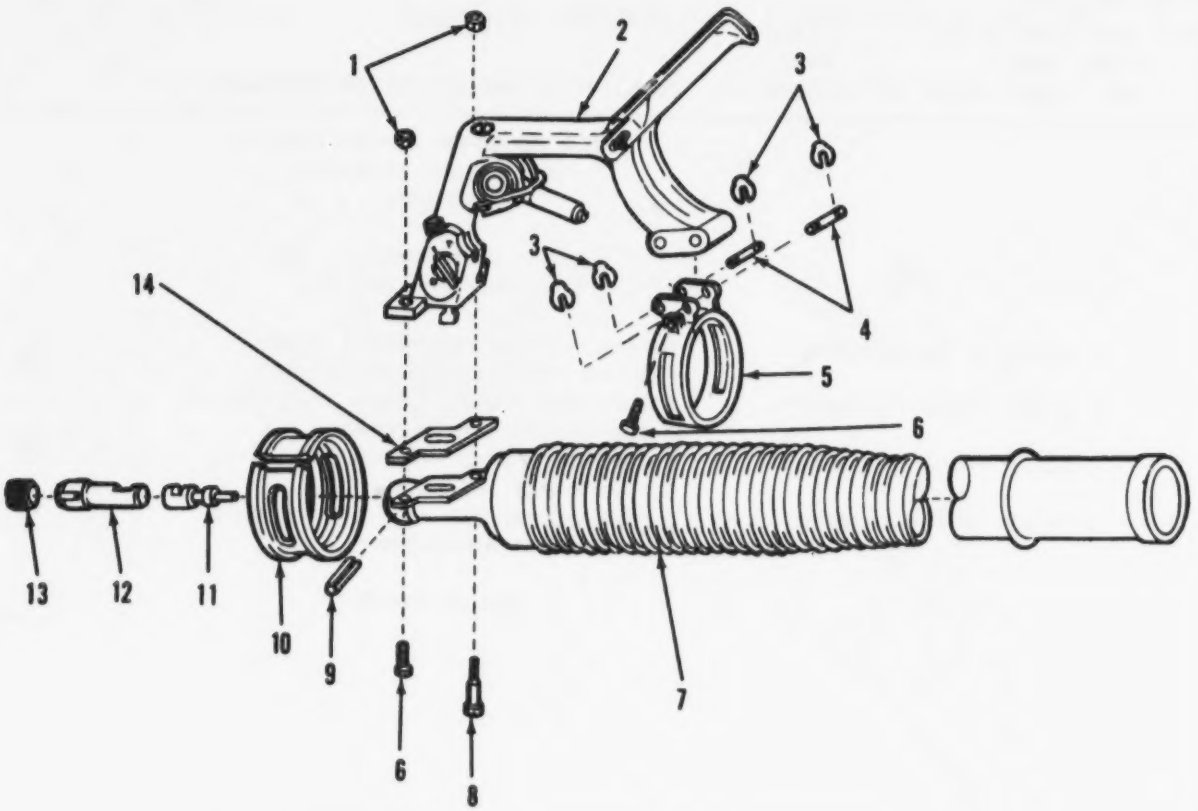


Figure B-2. 60-mm Mortar cannon, M225 11579080

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES(UOC)	(6) QTY
				GROUP 01 60-MM MORTAR CANNON, M225 11579080	
				FIG. B-2 60-MM MORTAR CANNON, M225	
1	PAOZZ	96906	MS51988-3	NUT,SELF-LOCKING,EX.....	2
2	PCOFA	19206	11578985	HANDLE AND FIRING M MECHANISM (SEE FIG.B-3 FOR ASSEMBLY BREAKDOWN).....	1
3	PAOZZ	19206	11578986	RING,RETAINING.....	4
4	PAOZZ	19206	11578984	PIN,GROOVED,HEADLES.....	2
5	PAOZZ	19206	11579040	CLAMP,LOOP.....	1
6	PAOZZ	80205	NAS1352-4LE14P	SCREW,SELF-LOCKING.....	2
7	PAFZA	19206	11579093	CANNON,60 MILLIMETE MILLIMETER.....	1
8	PAOZZ	19206	11579119	SCREW,SHOULDER.....	1
9	PAOZZ	19206	11579291	PIN,GROOVED,HEADLES.....	1
10	PAOZZ	19206	11579039	SLEEVE,CLAMP,MORTAR.....	1
11	PAOZZ	19206	11578971	PIN,FIRING.....	1
12	PAOZZ	19206	11578975	GUIDE,FIRING PIN.....	1
13	PAOZZ	19206	11579120	PLUG,MACHINE THREAD.....	1
14	PAOZZ	19206	11578976	GASKET.....	1
				END OF FIGURE	

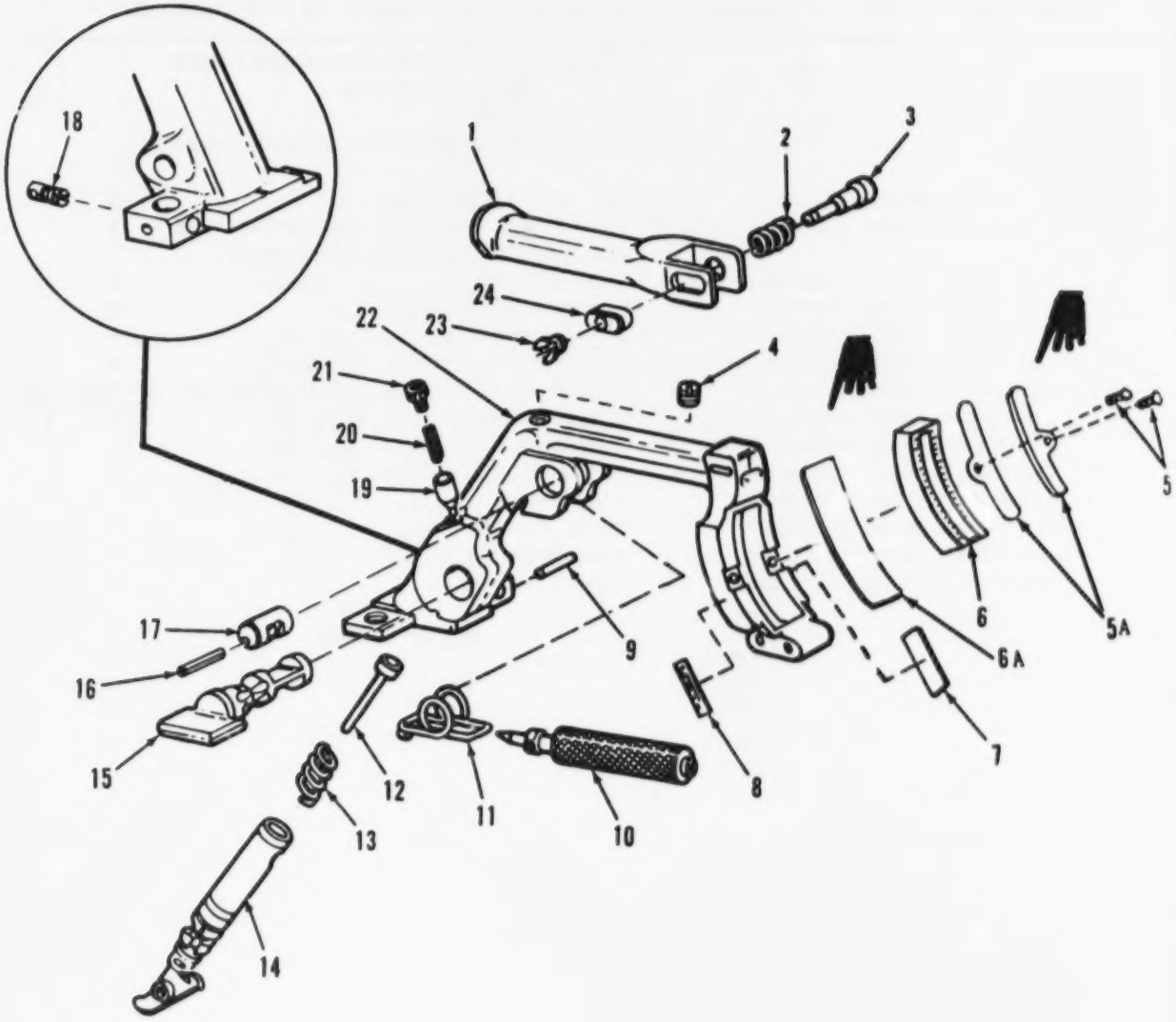


Figure B-3. Handle and firing mechanism 11578985

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				GROUP 0101 HANDLE AND FIRING MECHANISM 11578985	
				FIG. B-3 HANDLE AND FIRING MECHANISM	
1	PAFZZ	19206	11578987	HANDLE,CARRYING, MORTAR	1
2	PAFZZ	96906	MS24585-1285	SPRING,HELICAL, COMPRESSION	1
3	PAFZZ	19206	11578980	PLUNGER,DETENT	1
4	PAOZZ	19206	11579062	FITTING,LUBRICATION	1
5	PAFZZ	96906	MS21090-352	SCREW,SELF-LOCKING	2
5A	PAFZZ	19200	9360375	CLIP ASSEMBLY	2
6	XDFZA	19200	9360374	RANGE INDICATOR ASSEMBLY	1
6A	PAFZZ	19200	11785486	PAD,CUSHIONING	1
7	PAFZZ	19200	11748106	PLATE, IDENTIFICATION	1
8	PAFZZ	19200	11731011	PLATE,INSTRUCTION	1
9	PAFZZ	96906	MS9105-94	PIN,STRAIGHT, HEADLESS	1
10	PAFZZ	19206	11579094	TRIGGER	1
11	PAFZZ	19206	11579118	SPRING,HELICAL, TORSION	1
12	PAFZZ	19206	11578977	PLUNGER,SEAR RELEASE	1
13	PAFZZ	19206	11579092	SPRING,HELICAL, COMPRESSION	1
14	AFFFF	19206	11578995	SEAR ASSEMBLY (SEE FIG.B-4 FOR ASSEMBLY BREAKDOWN)	1
15	PAFZZ	19206	11578974	SELECTOR,FIRING	1
16	PAFZZ	96906	MS16562-226	PIN,SPRING	1
17	PAFZZ	19206	11578978	NUT,PLAIN,BARREL	1
18	PAFZZ	19206	11579117	SCREW,ADJUSTING SHOULDER,HEADLESS	1
19	PAOZZ	19206	11579778	PLUNGER,DETENT	1
20	PAOZZ	96906	MS24585-1073	SPRING,HELICAL,COMP COMPRESSION	1
21	PAOZZ	96906	MS21262-12	SCREW,SELF-LOCKING	1
22	XAFZZ	19206	11579668	HOUSING	1
23	PAFZZ	19206	11578981	RING,RETAINING	1
24	PAFZZ	19206	11578983	KEY,MACHINE	1
				END OF FIGURE	

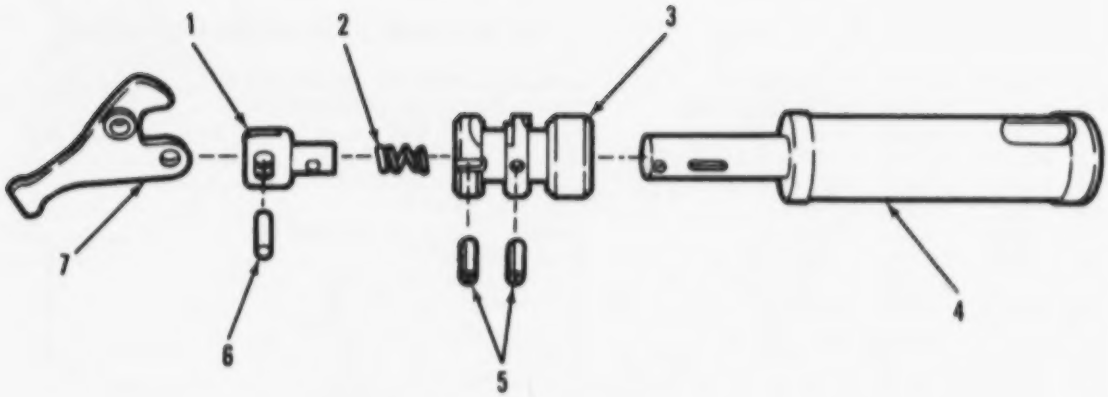


Figure B-4. Sear assembly 11578995

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES(UOC)	(6) QTY
				GROUP 010101 SEAR ASSEMBLY 11578995	
				FIG.B-4 SEAR ASSEMBLY	
1	PAFZZ	19206	11578979	CLEVIS,ROD END.....	1
2	PAFZZ	96906	MS24585-1080	SPRING,HELICAL,COMP COMPRESSION....	1
3	PAFZZ	19206	11579038	SEAR.....	1
4	PAFZZ	19206	11579042	HOUSING,SEAR.....	1
5	PAFZZ	96906	MS16562-223	PIN,SPRING SPRING.....	1
6	PAFZZ	96906	MS16556-334	PIN,STRAIGHT,HEADLE HEADLESS.....	1
7	PAFZZ	19206	11579046	ACTUATOR,FIRING PIN.....	1
				END OF FIGURE	

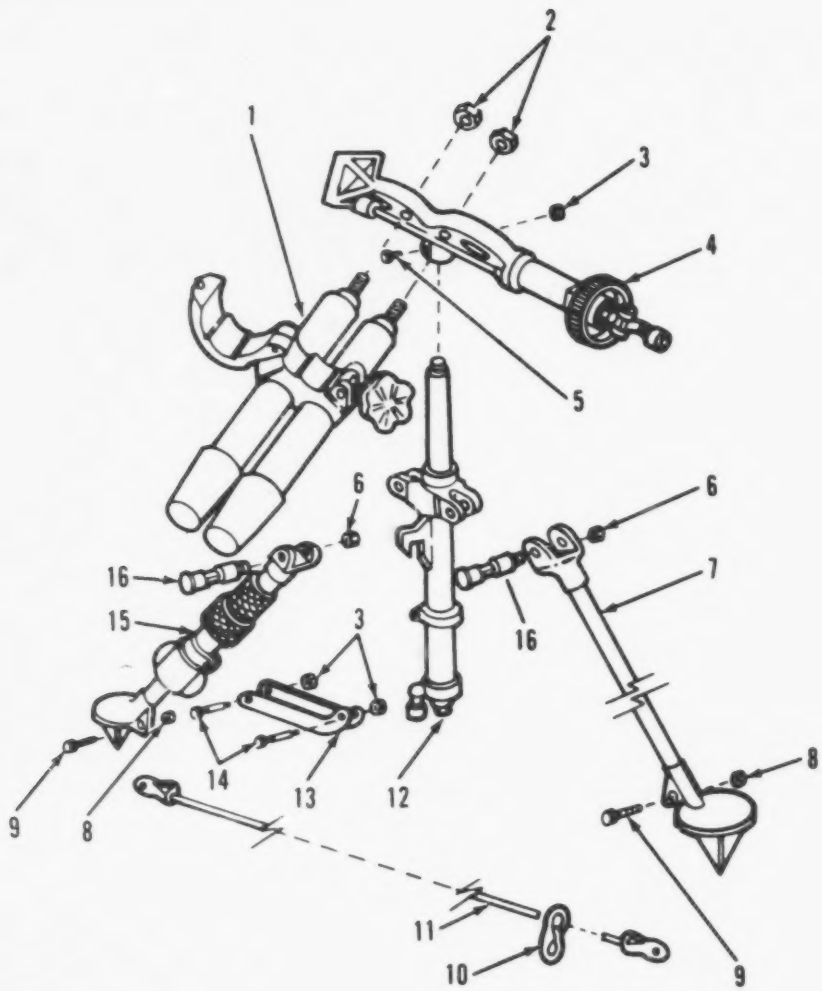


Figure B-5. 60-mm Mortar bipod, M170 11579090

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES(UOC)	(6) QTY
				GROUP 02 60-MM MORTAR BIPOD, M170 11579090	
				FIG.B-5 60-MM MORTAR BIPOD, M170	
1	PAOFF	19206	11579637	COLLAR-SHOCK ABSORB ABSORBER ASSEMBLY (SEE FIG.B-6 FOR ASSEMBLY BREAKDOWN).....	1
2	PAOZZ	96906	MS21083-D12	NUT,SELF-LOCKING,HE HEXAGON.....	2
3	PAOZZ	96906	MS51922-1	NUT,SELF-LOCKING,HE HEXAGON.....	3
4	PAOFF	19206	11579020	TRAVERSING MECHANIS MECHANISM (SEE FIG.B-8 FOR ASSEMBLY BREAKDOWN).....	1
5	PAOZZ	96906	MS35307-310	SCREW,CAP,HEXAGON H.....	1
6	PAOZZ	96906	MS21083-D7	NUT,SELF-LOCKING,HE HEXAGON.....	2
7	PAOFF	19206	11579075	LEG,MORTAR MOUNT (RIGHT).....	1
8	PAOZZ	96906	MS21083-N3	NUT,SELF-LOCKING,HE HEXAGON.....	2
9	PAOZZ	96906	MS21096-3010	SCREW,SELF-LOCKING.....	2
10	PAOZZ	19206	11579107	SNAP HOOK.....	1
11	PAOZZ	19206	11579045	WIRE ROPE ASSEMBLY,.....	1
12	PAOFF	19206	11579001	ELEVATING MECHANISM (SEE FIG.B-11 FOR ASSEMBLY BREAKDOWN).....	1
13	PAOZZ	19206	11579667	CONNECTING LINK,RIG RIGID.....	1
14	PAOZZ	96906	MS51975-14	SCREW,SHOULDER.....	2
15	PAOFF	19206	11579110	LEG,MORTAR MOUNT (LEFT).....	1
16	PAOZZ	19206	11579018	PIN,HINGE.....	2
				END OF FIGURE	

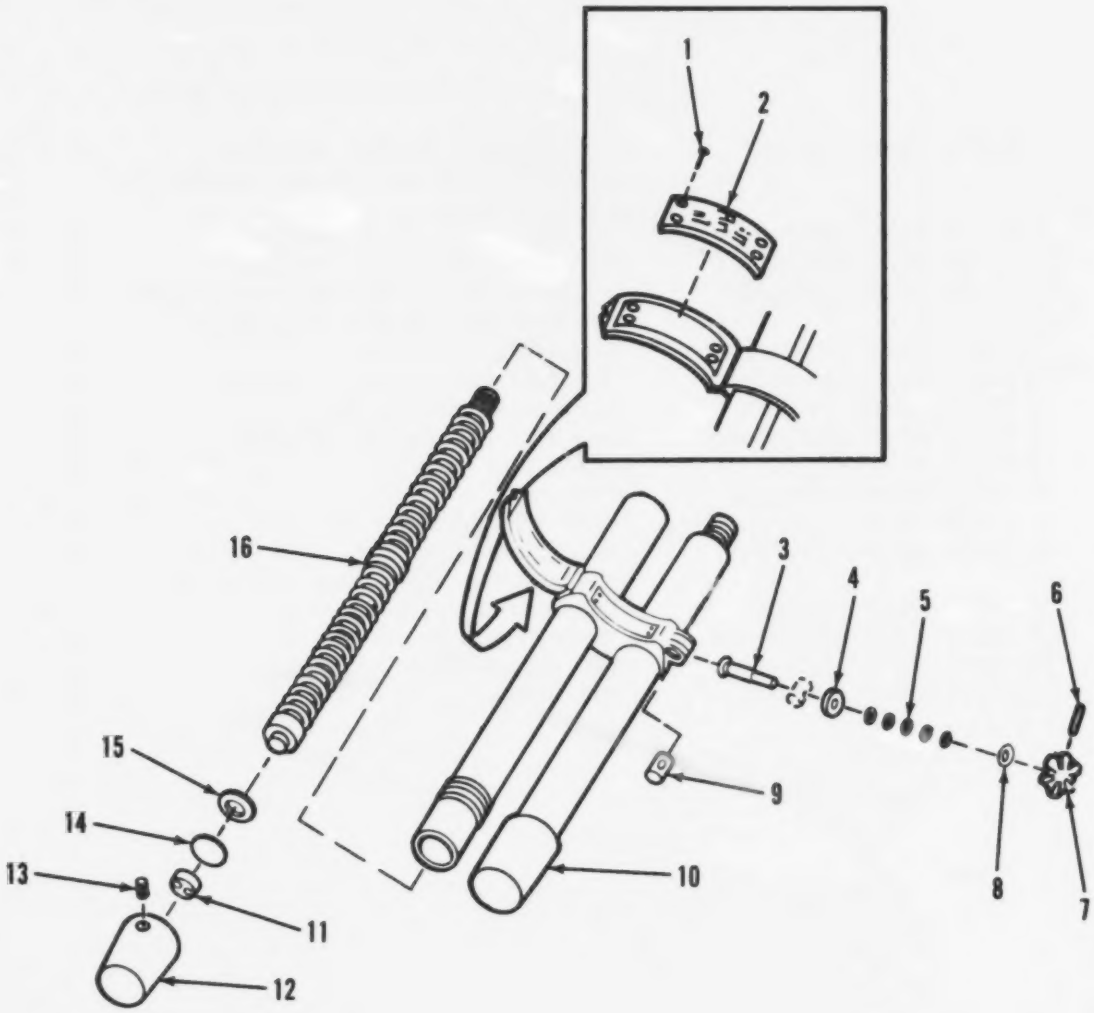


Figure B-6. Collar-shock absorber assembly 11579637

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES(UOC)	(6) QTY
				GROUP 0201 COLLAR-SHOCK ABSORBER ASSEMBLY 11579637	
				FIG.B-6 COLLAR-SHOCK ABSORBER ASSEMBLY	
				RIVET,SOLID	4
1	PADZZ	96906	MS20470A3-8	PLATE,IDENTIFICATIO MAKE FROM	1
2	MDDZZ	19206	11579290	PLATE,IDENTIFICATION PER MIL-P-514 NSN 9905004090093	
3	PAFZZ	19206	11579108	SHAFT,SHOULDERED	1
4	PAFZZ	19206	11579031	WASHER,FLAT	1
5	PAFZZ	19206	11579109	WASHER,SPRING TENSI BELLEVILLE	5
6	PAFZZ	96906	MS16562-231	PIN,SPRING	1
7	PAFZZ	19206	11579032	KNOB	1
8	PAFZZ	19206	11579028	WASHER,FLAT	1
9	PAFZZ	19206	11579029	NUT,PLAIN,BARREL	1
10	PAFZZ	19206	11579096	YOKE,MORTAR	1
11	PAFZZ	19206	7235976	BUMPER,RUBBER	2
12	PAFZZ	19206	11579095	CAP,SHOCK ABSORBER	2
13	PAFZZ	19206	11579083	SETSCREW	2
14	PAFZZ	19206	11579019	DISK,SOLID,PLAIN	2
15	PAFZZ	19206	11578997	WASHER,FLAT	2
16	AFFFF	19206	11579084	PISTON ASSY (SEE FIG.B-7 FOR ASSEMBLY BREAKDOWN)	
				END OF FIGURE	

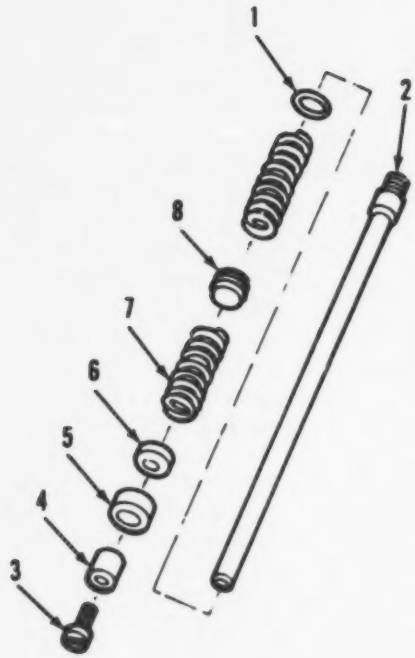


Figure B-7. Piston assembly 11579084

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES(UOC)	(6) QTY
				GROUP 020101 PISTON ASSEMBLY 11579084	
				FIG.B-7 PISTON ASSEMBLY	
1	PAFZZ	19206	11579074	WASHER,FLAT SHOCK ABSORBER.....	1
2	PAFZZ	19206	11578996	ROD,SHOCK ABSORBER.....	1
3	PAFZZ	19206	11579091	PLUG,MACHINE THREAD.....	1
4	PAFZZ	19206	11579292	SPACER,SLEEVE.....	1
5	PAFZZ	19206	11579086	CUP,COMPRESSION.....	1
6	PAFZZ	19206	11579085	SEAT,HELICAL COMPRE COMPRESSION SPRING.....	1
7	PAFZZ	19206	11579043	SPRING,HELICAL,COMP COMPRESSION....	2
8	PAFZZ	19206	11579044	SPACER,SLEEVE.....	1
				END OF FIGURE	

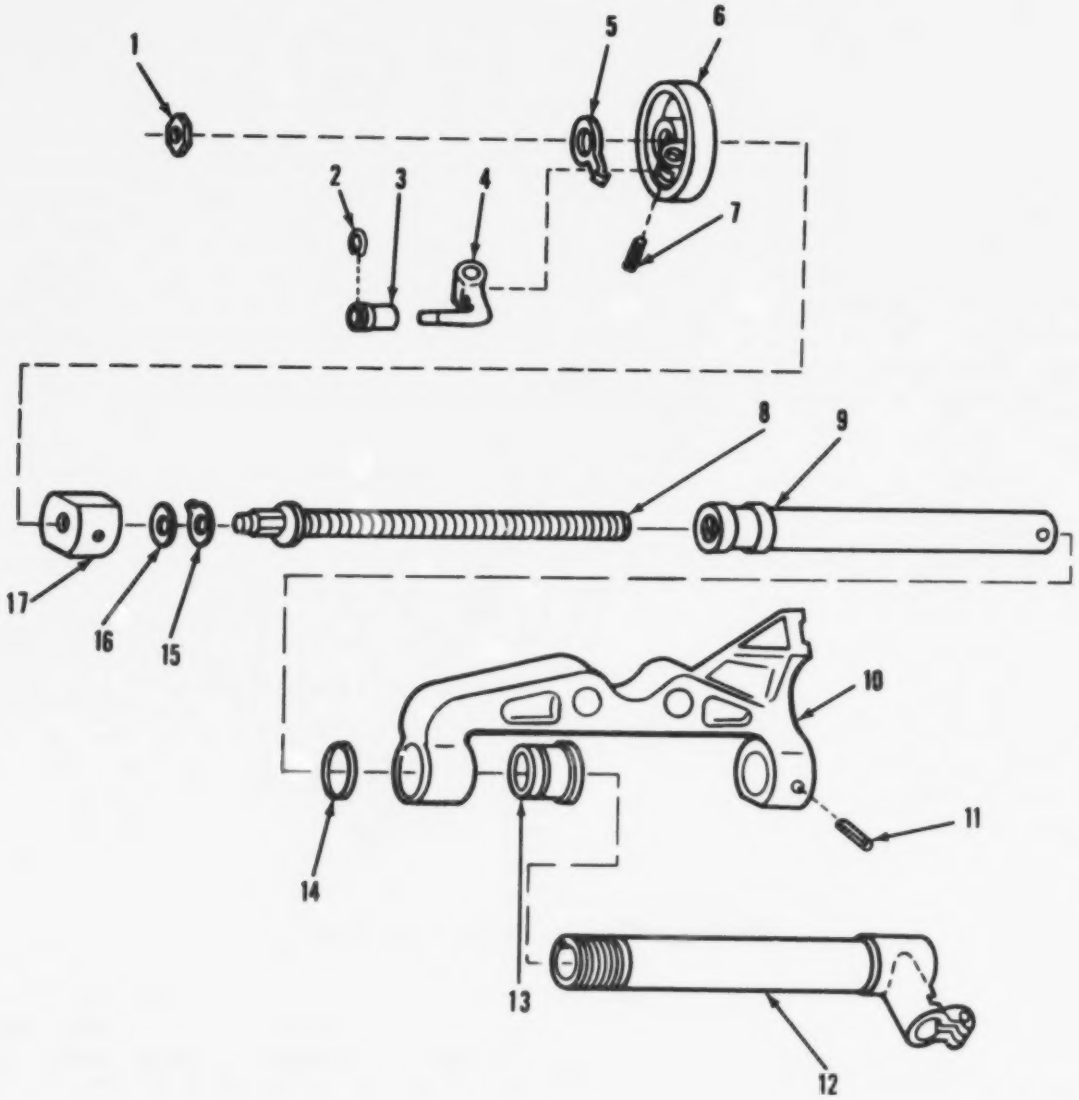


Figure B-8. Traversing mechanism 11579020

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES(UOC)	(6) QTY
				GROUP 0202 TRAVERSING MECHANISM 11579020	
				FIG.B-8 TRAVERSING MECHANISM	
1	PAFZZ	96906	MS21083-D7	NUT,SELF-LOCKING,HE HEXAGON.....	1
2	PAFZZ	19206	11578991	RING,RETAINING.....	1
3	PAFZZ	19206	11579027	KNOB.....	1
4	PAFZZ	19206	11579007	CRANK,HAND.....	1
5	PAFZZ	19206	11579036	SPRING,FLAT.....	1
6	PAFZZ	19206	11579012	KNOB.....	1
7	PAFZZ	96906	MS16562-233	PIN,SPRING SPRING.....	1
8	PAFZZ	19206	11579111	SPINDLE,TRAVERSING.....	1
9	PAFZZ	19206	11579087	NUT,TRAVERSING SPIN SPINDLE.....	1
10	XAFZZ	19206	11579023	YOKE.....	1
11	PAFZZ	96906	MS35675-41	PIN,GROOVED,HEADLES.....	1
12	PAFFF	19206	11579010	HOUSING,TRAVERSING (SEE FIG.B-9 FOR ASSEMBLY BREAKDOWN).....	1
13	PAFZZ	19206	11579026	BEARING,SLEEVE TRAVERSING.....	1
14	PAFZZ	81349	M27426-1133D	RING,RETAINING.....	1
15	PAFZZ	19206	11579025	WASHER,KEY TRAVERSING.....	1
16	PAFZZ	19206	11578989	WASHER,SPRING TENSI TENSION.....	1
17	AFFFF	19206	11579101	RETAINER (SEE FIG.B-10 FOR ASSEMBLY BREAKDOWN).....	1
				END OF FIGURE	

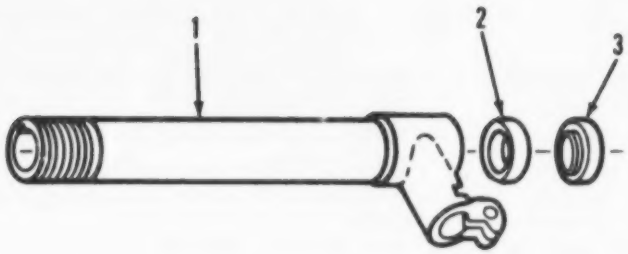


Figure B-9. Traversing housing 11579010

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES(UOC)	(6) QTY
				GROUP 020201 TRAVERSING HOUSING 11579010	
				FIG.B-9 TRAVERSING HOUSING	
1	XAFZZ	19206	11579021	TUBE	1
2	PAFZZ	19206	11578993	BEARING,SLEEVE TRAVERSING TUBE	1
3	PAFZZ	19206	11579006	PACKING,PREFORMED WIPER	1
				END OF FIGURE	

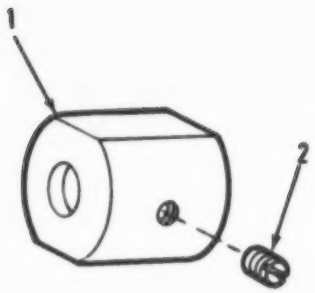


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Figure B-10. Retainer 11579101

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES(UOC)	(6) QTY
				GROUP 020202 & GROUP 020302 RETAINER 11579101	
				FIG.B-10 RETAINER	
1	PAFZZ	19206	11579005	RETAINER,HELICAL CO.....	1
2	PAFZZ	19206	11578992	SETSCREW.....	1
				END OF FIGURE	

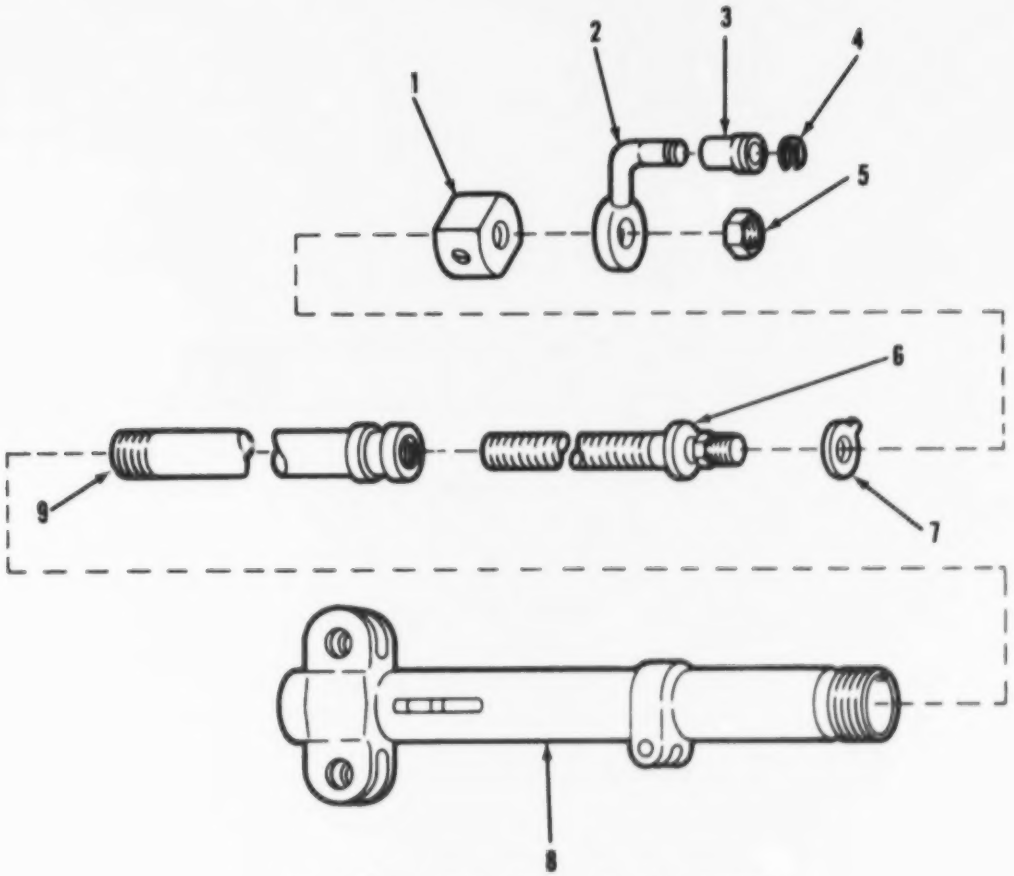

Figure B-11. Elevating mechanism 11579001

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES(UOC)	(6) QTY
				GROUP 0203 ELEVATING MECHANISM 11579001	
				FIG.B-11 ELEVATING MECHANISM	
1	AFFFF	19206	11579101	RETAINER, (SEE GROUP 020202, FIG.B10 FOR ASSEMBLY BREAKDOWN).....	1
2	PAFZZ	19206	11579014	CRANK,HAND.....	1
3	PAFZZ	19206	11579027	KNOB.....	1
4	PAFZZ	19206	11578991	RING,RETAINING.....	1
5	PAFZZ	96906	MS21083-D7	NUT,SELF-LOCKING,HE.....	1
6	PAFZZ	19206	11579106	SPINDLE,ELEVATING M.....	1
7	PAFZZ	19206	11579004	WASHER,KEY ELEVATING.....	1
8	PBFFF	19206	11579011	HOUSING,ELEVATING M (SEE FIG.B-12 FOR ASSEMBLY BREAKDOWN).....	1
9	PAFZZ	19206	11579035	NUT,ELEVATING SPIND SPINDLE.....	1
				END OF FIGURE	

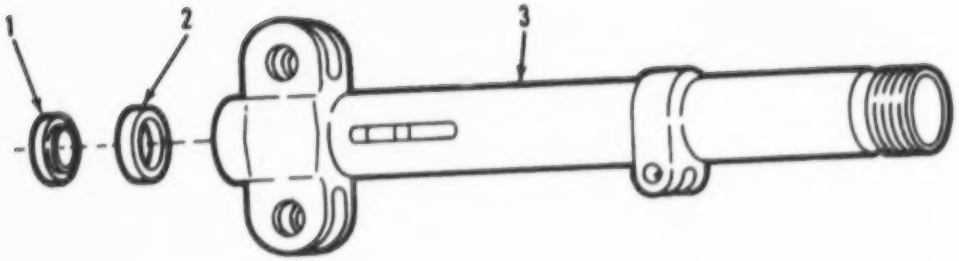

Figure B-12. Elevating housing 11579011

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES(UOC)	(6) QTY
				GROUP 020301 ELEVATING HOUSING 11579011	
				FIG.B-12 ELEVATING HOUSING	
1	PAFZZ	19206	11579006	PACKING,PREFORMED ROD.....	1
2	PAFZZ	19206	11579033	BEARING,SLEEVE.....	1
3	XAFZZ	19206	11579103	HOUSING.....	1
				END OF FIGURE	

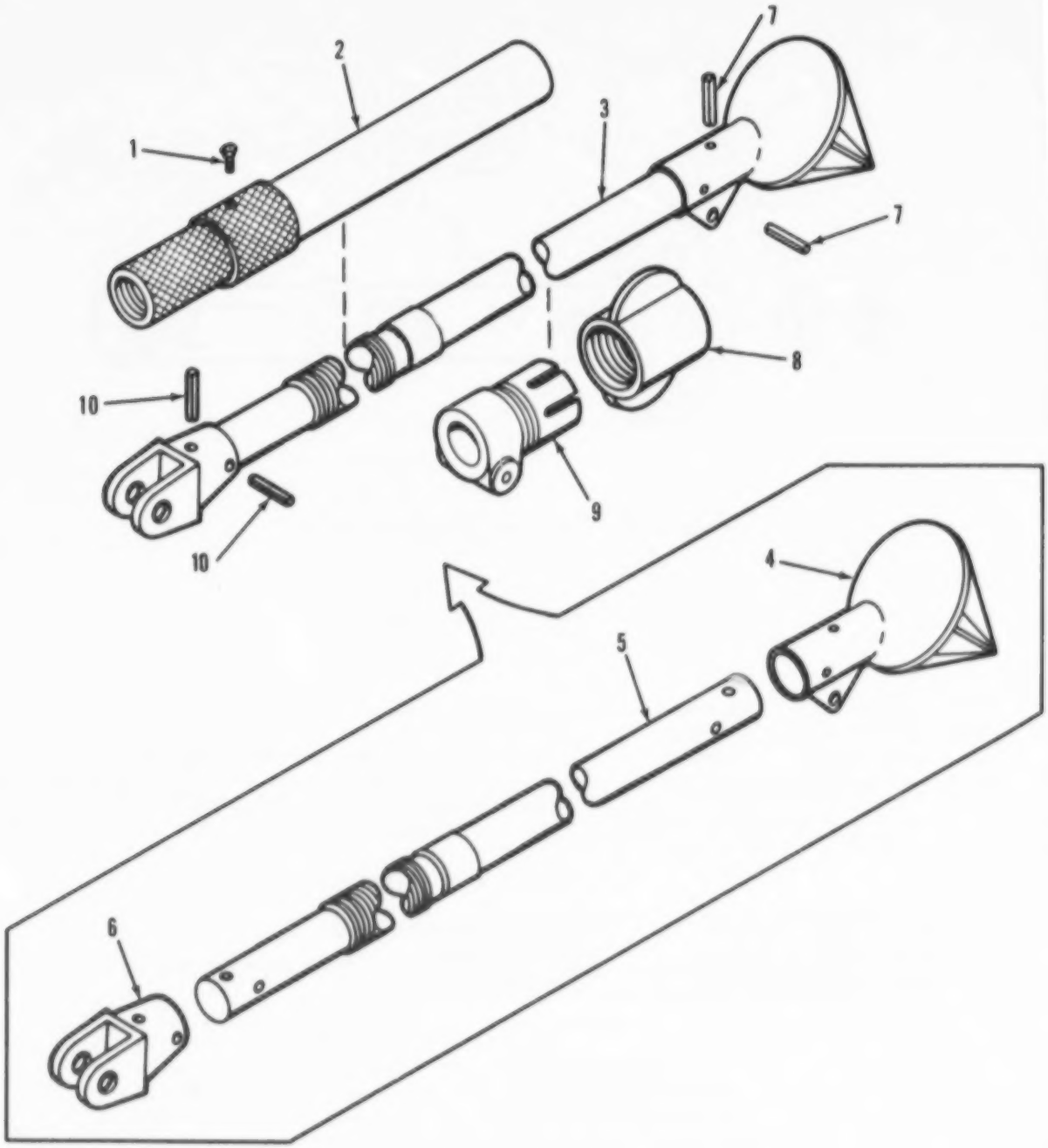

Figure B-13. Mortar mount leg (left) 11597110 and mortar mount leg (left subassembly) 11579122

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES(UOC)	(6) QTY
				GROUP 0204 MORTAR MOUNT LEG (LEFT) 11579110 AND GROUP 020401 MORTAR MOUNT LEG (LEFT SUBASSEMBLY) 11579122	
				FIG.B-13 MORTAR MOUNT LEG (LEFT) AND MORTAR MOUNT LEG (LEFT SUBASSEMBLY)	
1	PAFZZ	19206	11579052	SCREW,SELF-LOCKING	1
2	PAFZZ	19206	11579121	NUT,CROSSLEVELING	1
3	PAFFF	19206	11579122	LEG,MORTAR MOUNT (LEFT SUBASSEMBLY)	1
4	PAFZZ	19206	11579666	..FOOT,MORTAR MOUNT	1
5	XAFZZ	19206	11579056	..LEG,MORTAR MOUNT	1
6	PAFZZ	19206	11579016	..CLEVIS,ROD END	2
7	PAFZZ	96906	MS35675-18	PIN,GROOVED,HEADLES	1
8	PAFZZ	19206	11579077	NUT,PLAIN,WING	1
9	PAFZZ	19206	11579002	BRACKET,SLIDING	2
10	PAFZZ	19206	11578999	PIN,GROOVED,HEADLES	
				END OF FIGURE	

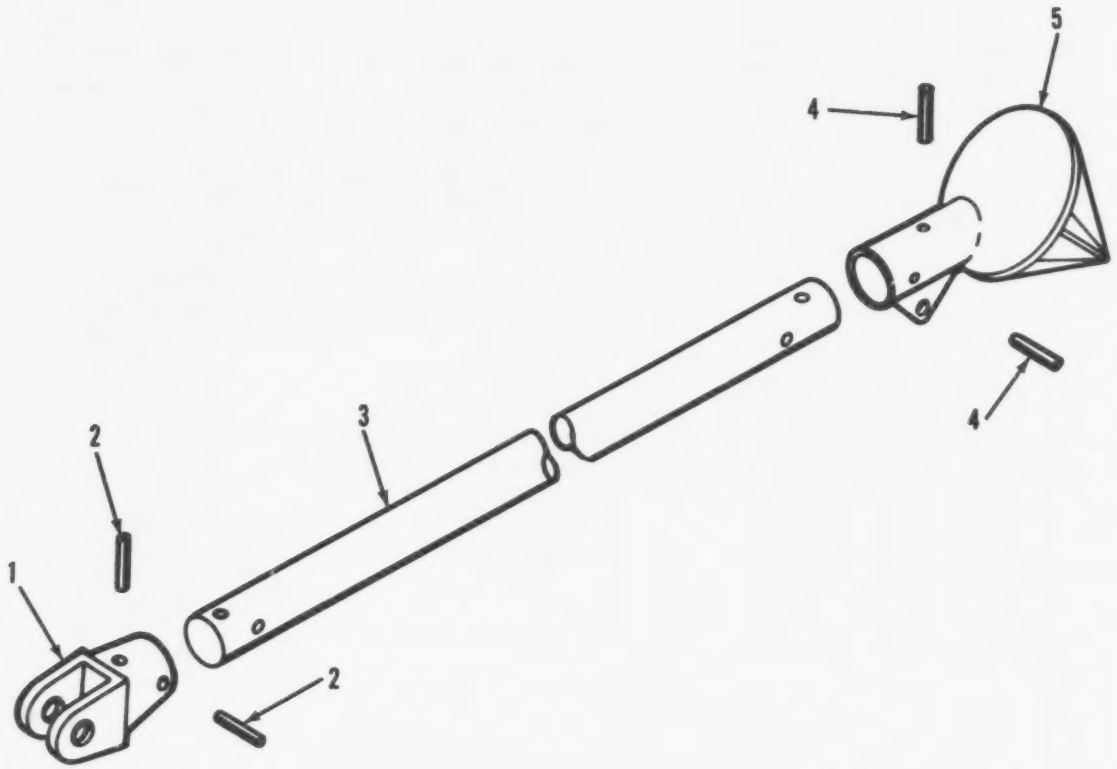

Figure B-14. Mortar mount leg (right) 11579075

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES(UOC)	(6) QTY
				GROUP 0205 MORTAR MOUNT LEG (RIGHT) 11579075	
				FIG.B-14 MORTAR MOUNT LEG (RIGHT)	
1	PAFZZ	19206	11579016	CLEVIS,ROD END.....	1
2	PAFZZ	19206	11578999	PIN,GROOVED,HEADLES.....	2
3	XAFZZ	19206	11578998	LEG,MORTAR MOUNT.....	1
4	PAFZZ	96906	MS35675-18	PIN,GROOVED,HEADLES.....	1
5	PAFZZ	19206	11579666	FOOT,MORTAR MOUNT.....	1
				END OF FIGURE	

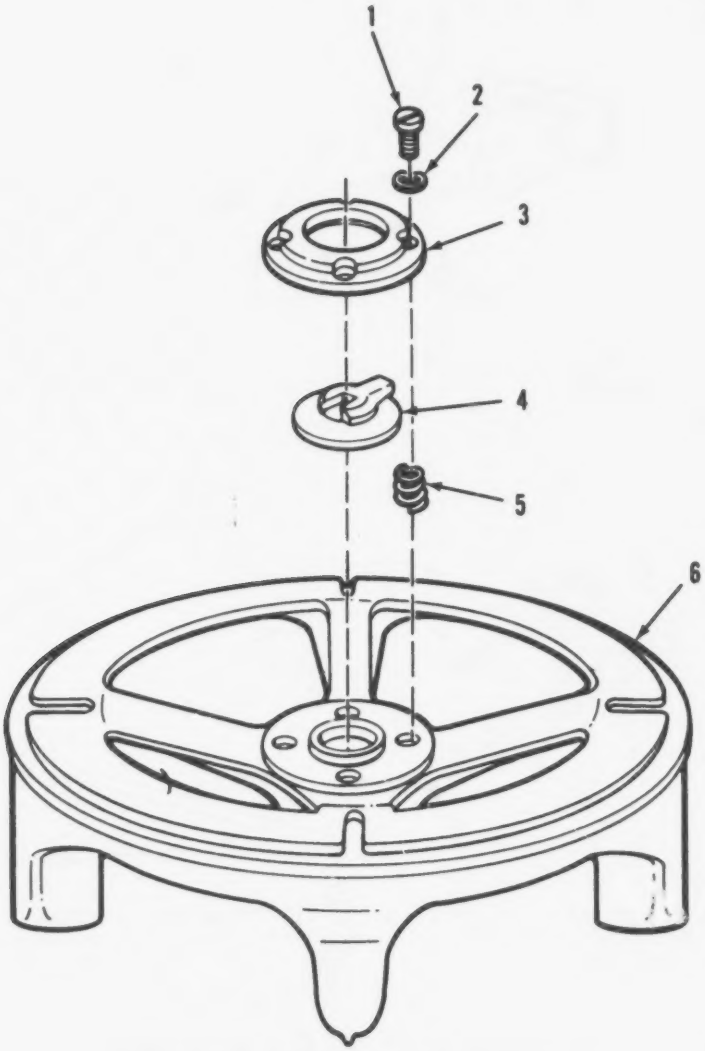

Figure B-15. Mortar baseplate M7 11589070

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES(UOC)	(6) QTY
				GROUP 03 MORTAR BASEPLATE M7 11579070	
				FIG.B-15 MORTAR BASEPLATE M7	
1	PAOZZ	96906	MS35276-263	SCREW,MACHINE MACHINE.....	4
2	PAOZZ	96906	MS35338-138	WASHER,LOCK.....	4
3	PAOZZ	19206	11579063	RETAINER,LOCKING CA CAP.....	1
4	PAOZZ	19206	11579067	CAP,LOCKING.....	1
5	PAFZZ	96906	MS124735	INSERT,SCREW THREAD.....	4
6	XAFZZ	19206	11579071	BASEPLATE BASE.....	1
				END OF FIGURE	

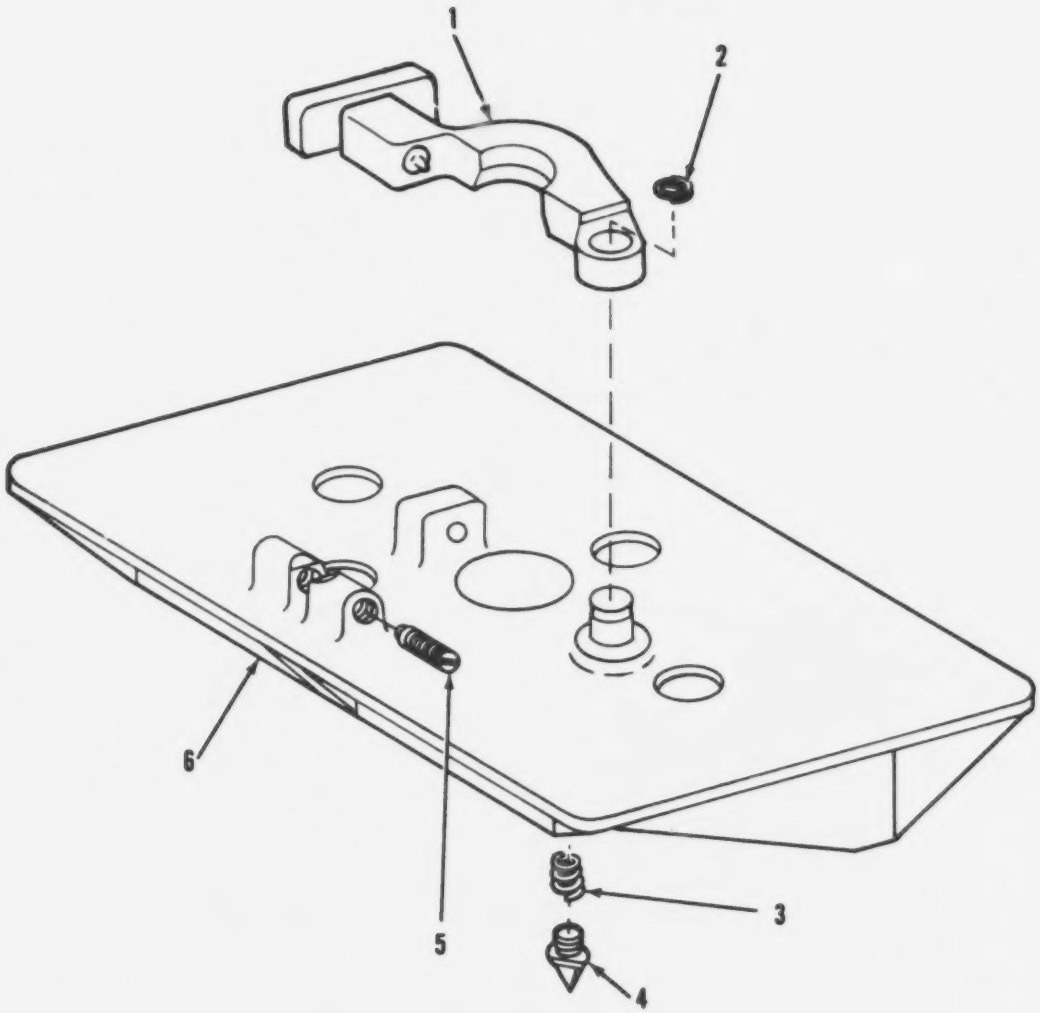

Figure B-16. Mortar baseplate M8 11578990

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES(UOC)	(6) QTY
				GROUP 04 MORTAR BASEPLATE M8 11578990	
				FIG.B-16 MORTAR BASEPLATE M8	
1	PAOFF	19206	11579066	LATCH,BASEPLATE (SEE FIG.B-17 FOR ASSEMBLY BREAKDOWN).....	1
2	PAOZZ	81349	M27426-1103D	RING,RETAINING.....	1
3	PAFZZ	96906	MS21209C5-10P	INSERT,SCREW THREAD.....	5
4	PAFZZ	19206	11579058	POINT,BASEPLATE STA.....	5
5	PAFZZ	19206	11579057	PLUNGER,QUICK RELEA RELEASE.....	2
6	XAFZZ	19206	11579068	BASEPLATE BASE,AUX.....	1
				END OF FIGURE	

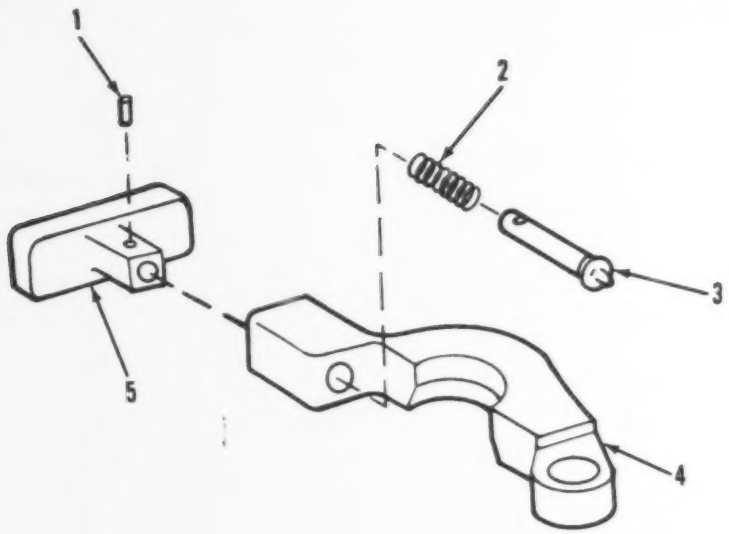

Figure B-17. Baseplate latch 11579066

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES(UOC)	(6) QTY
				GROUP 0401 BASEPLATE LATCH 11579066	
				FIG.B-17 BASEPLATE LATCH	
1	PAFZZ	96906	MS16562-213	PIN,SPRING.....	1
2	PAOZZ	96906	MS24585-1251	SPRING,HELICAL, COMPRESSION.....	1
3	PAFZZ	19206	11579061	PIN,SHOULDER,HEADLE LATCH.....	1
4	XAFZZ	19206	11579064	LATCH, BASEPLATE.....	1
5	PAFZZ	19206	11579059	KNOB LATCH.....	1
				END OF FIGURE	

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES(UOC)	(6) QTY
				GROUP 99 BULK MATERIALS	
				FIG. BULK	
1	PADZZ	81349	MIL-P-514	PLATE,IDENTIFICATIO.....	V
				END OF FIGURE	

Section III. SPECIAL TOOLS LIST

There are no special tools for this item.

Section IV. NATIONAL STOCK NUMBER AND PART NUMBER INDEX

NATIONAL STOCK NUMBER INDEX

STOCK NUMBER	FIG.	ITEM
5310-00-016-7194	B-5	6
	B-8	1
	B-11	5
5305-00-021-3668	B-5	5
5315-00-058-9731	B-17	1
5315-00-058-9767	B-6	6
5315-00-058-9808	B-8	7
5310-00-088-1251	B-5	3
5305-00-116-1469	B-3	5
5305-00-148-0081	B-5	9
5310-00-159-1577	B-2	1
5310-00-164-6416	B-6	5
5305-00-182-7475	B-2	6
5320-00-242-0371	B-6	1
9905-00-257-2746	B-3	8
5340-00-290-4480	B-15	5
4730-00-420-9017	B-3	4
5330-00-433-9640	B-9	3
	B-12	1
5315-00-477-1034	B-13	7
	B-14	4
5310-00-562-2790	B-8	16
5365-00-723-5976	B-6	11
5315-00-753-3893	B-3	16
5315-00-804-9379	B-3	9
5315-00-826-3251	B-4	5
5310-00-902-6676	B-5	8
5305-00-912-4838	B-15	1
5305-00-923-8599	B-5	14
5315-00-928-2336	B-8	11
5310-00-933-8120	B-15	2
5310-00-983-9448	B-5	2
5360-01-007-1985	B-4	2
1010-01-042-9139	B-3	1
1010-01-042-9230	B-3	3
1010-01-042-9328	B-2	11
1010-01-042-9329	B-4	3
1010-01-042-9330	B-3	10
1010-01-043-2043	B-3	12
1010-01-043-2044	B-4	7
1010-01-043-2045	B-2	10
1010-01-043-2046	B-13	9
1010-01-043-2049	B-8	12
1010-01-043-2050	B-2	2
1010-01-043-2051	B-8	9
1010-01-043-2081	B-2	12
1010-01-043-4572	B-5	4
1010-01-043-4661	B-1	4
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1010-01-043-4674	B-8	4
1010-01-043-4792	B-6	14
1010-01-043-7477	B-16	1
1010-01-043-7478	B-15	4
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1010-01-043-7481	B-11	9
1010-01-043-7482	B-6	12
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1010-01-043-7497	B-8	8
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5310-01-043-8070	B-13	8
9905-01-043-8163	B-3	7
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5340-01-044-3942	B-5	10
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1010-01-044-5883	B-2	7
1010-01-046-7156	B-11	2
3120-01-047-0496	B-9	2
3120-01-047-0497	B-8	13
3120-01-047-0498	B-12	2
5360-01-047-0615	B-3	2
5365-01-047-0636	B-7	4
5310-01-047-1031	B-6	8
5330-01-047-1046	B-2	14
5360-01-047-1397	B-3	13
5360-01-047-1401	B-3	11
5365-01-047-3200	B-3	23
5365-01-047-3201	B-2	3
5365-01-047-3202	B-8	2
	B-11	4
5340-01-047-4336	B-16	5
5310-01-047-6295	B-6	15
5315-01-047-6512	B-5	16
5315-01-047-8151	B-2	4
5360-01-047-8272	B-3	20
5360-01-047-8273	B-7	7
5360-01-047-9096	B-8	5
5355-01-047-9499	B-8	3
	B-11	3
5355-01-048-0476	B-8	6

NATIONAL STOCK NUMBER AND PART NUMBER INDEX

NATIONAL STOCK NUMBER INDEX

STOCK NUMBER	FIG.	ITEM
5365-01-048-1336	B-8	14
5310-01-048-2637	B-11	7
5310-01-048-3268	B-8	15
5340-01-048-6354	B-16	3
5365-01-048-7838	B-16	2
5315-01-049-0770	B-3	24
5365-01-049-1556	B-7	8
5310-01-049-9169	B-6	9
5305-01-049-9416	B-3	18
5305-01-049-9837	B-10	2
5305-01-049-9838	B-6	13
5315-01-050-3421	B-13	10
	B-14	2
5365-01-050-5110	B-2	13
4010-01-050-9735	B-5	11
5310-01-051-8095	B-7	1
5340-01-051-9820	B-10	1
5305-01-052-9111	B-13	1
5355-01-052-9245	B-17	5
5310-01-054-2569	B-6	4
5315-01-054-6780	B-17	3
5340-01-054-6799	B-2	5
1010-01-063-7680	B-5	1
5365-01-064-3451	B-7	3
5305-01-064-5441	B-3	21
5340-01-067-0691	B-4	1
5310-01-068-7470	B-3	17
3040-01-073-1185	B-6	3
5355-01-074-6043	B-6	7
3040-01-079-1795	B-5	13
1010-01-079-3373	B-13	3
1010-01-085-1584	B-13	4
	B-14	5
5315-01-087-7106	B-4	6
1010-01-148-4822	B-3	19
5340-01-176-8767	B-13	6
	B-14	1
5340-01-237-9034	B-3	5A
8140-01-238-0569	B-3	6A

NATIONAL STOCK NUMBER AND PART NUMBER INDEX

PART NUMBER INDEX

FSCM	PART NUMBER	STOCK NUMBER	FIG.	ITEM
81349	MILP514		BULK	1
96906	MS124735	5340-00-290-4480	B-15	5
96906	MS16556-334	5315-01-087-7106	B-4	6
96906	MS16562-213	5315-00-058-9731	B-17	1
96906	MS16562-223	5315-00-826-3251	B-4	5
96906	MS16562-226	5315-00-753-3893	B-3	16
96906	MS16562-231	5315-00-058-9767	B-6	6
96906	MS16562-253	5315-00-058-9808	B-8	7
96906	MS20470A3-8	5320-00-242-0371	B-6	1
96906	MS21083-D12	5310-00-983-9448	B-5	2
96906	MS21083-D7	5310-00-016-7194	B-5	6
			B-8	1
96906	MS21083-N3	5310-00-902-6676	B-11	5
96906	MS21090-352	5305-00-116-1469	B-5	8
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96906	MS21209C5-10P	5340-01-048-6354	B-5	9
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80205	NAS1352-4LE14P	5305-00-182-7475	B-8	14
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19206	11578990	1010-01-043-4661	B-8	16
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19206	11578996	1010-01-043-7488	B-7	2
19206	11578997	5310-01-047-6295	B-6	15
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19206	11578999	5315-01-050-3421	B-13	10
			B-14	2
19206	11579001	1010-01-043-4663	B-5	12
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19206	11579004	5310-01-048-2637	B-11	7
19206	11579005	5340-01-051-9820	B-10	1
19206	11579006	5330-00-433-9640	B-9	3
			B-12	1
19206	11579007	1010-01-043-4674	B-8	4
19206	11579010	1010-01-043-2049	B-8	12
19206	11579011	1010-01-043-7479	B-11	8
19206	11579012	5355-01-048-0476	B-8	6
19206	11579014	1010-01-046-7156	B-11	2
19206	11579016	5340-01-176-8767	B-13	6
			B-14	1
19206	11579018	5315-01-047-6512	B-5	16
19206	11579019	1010-01-043-4792	B-6	14
19206	11579020	1010-01-043-4572	B-5	4
19206	11579021		B-9	1
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19206	11579025	5310-01-048-3268	B-8	15
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19206	11579052	5305-01-052-9111	B-13	1
19206	11579056		B-13	5
19206	11579057	5340-01-047-4336	B-16	5
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19206	11579061	5315-01-054-6780	B-17	3
19206	11579062	4730-00-420-9017	B-3	4
19206	11579063	1010-01-043-7487	B-15	3
19206	11579064		B-17	4
19206	11579066	1010-01-043-7477	B-16	1
19206	11579067	1010-01-043-7478	B-15	4
19206	11579068		B-16	6
19206	11579070	1010-01-043-7504	B-1	3
19206	11579071		B-15	6
19206	11579074	5310-01-051-8095	B-7	1
19206	11579075	1010-01-043-7505	B-5	7
19206	11579077	5310-01-043-8070	B-13	8
19206	11579080		B-1	1
19206	11579083	5305-01-049-9838	B-6	13
19206	11579084		B-6	16
19206	11579085	1010-01-044-0267	B-7	6
19206	11579086	1010-01-044-3875	B-7	5
19206	11579087	1010-01-043-2051	B-8	9
19206	11579090		B-1	2
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19206	11579118	5360-01-047-1401	B-3	11
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19206	11579120	5365-01-050-5110	B-2	13
19206	11579121	1010-01-043-7480	B-13	2
19206	11579122	1010-01-079-3373	B-13	3
19206	11579290		B-6	2
19206	11579291	5315-01-044-3916	B-2	9
19206	11579292	5365-01-047-0636	B-7	4
19206	11579637	1010-01-063-7680	B-5	1
19206	11579666	1010-01-085-1584	B-13	4
			B-14	5
19206	11579667	3040-01-079-1795	B-5	13
19206	11579668		B-3	22
19206	11579778	1010-01-148-4822	B-3	19
19200	11731011	9905-00-257-2746	B-3	8

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19200	11785486	8140-01-238-0569	B-3	6A
19206	7235976	5365-00-723-5976	B-6	11
19200	9360374		B-3	6
19200	9360375	5340-01-237-9034	B-3	5A

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APPENDIX C
EXPENDABLE SUPPLIES AND MATERIALS LIST

Section I. INTRODUCTION

C-1. **SCOPE.** This appendix lists expendable supplies and materials you will need to operate and maintain the mortar. These items are authorized to you by CTA 50-970, Expendable Items (Except Medical, Class V, Repair Parts, and Heraldic Items).

C-2. **EXPLANATION OF COLUMNS.**

a. *Column 1 - Item Number.* This number is assigned to the entry in the listing and is referenced in the narrative instructions to identify the material (e.g., "Use cloth, abrasive, crocus, item 4, app C").

b. *Column 2 - Level.* This column identifies the lowest level of maintenance that requires the listed item.

O - Organizational Maintenance
F - Direct Support Maintenance

c. *Column 3 - National Stock Number.* This is the National stock number assigned to the item; used it to request or requisition the item.

d. *Column 4 - Description.* Indicates the Federal item name and, if required, a description to identify the item. The last line for each item indicates the Federal Supply Code For Manufacturer (FSCM) in parentheses followed by the part number.

e. *Column 5 - Unit of Measure (U/M).* Indicates the measure used in performing the actual maintenance function. This measure is expressed by a two-character alphabetical abbreviation (e.g., ea, in., pr). If the unit of measure differs from the unit of issue, requisition the lowest unit of issue that will satisfy your requirements.

Section II. EXPENDABLE SUPPLIES AND MATERIALS LIST

(1) ITEM NUMBER	(2) LEVEL	(3) NATIONAL STOCK NUMBER	(4) DESCRIPTION	(5) U/M
0.1	0	8105-00-269-4662	BAG, PLASTIC: grease, vapor and waterproof (20 x 25) (81349) MIL-B-117 Pkg of 100	EA
1	0	7920-00-205-2401	BRUSH, CLEANING TOOL: (96906) MS-16746-29	EA
2	0	6850-00-392-9751	CLEANING COMPOUND, OPTICAL LENS: (81349) MIL-C-43454 2 oz bottle	OZ
3	0	6850-00-224-6663	CLEANING COMPOUND, RIFLE BORE: (81349) MIL-C-372 1 gal can	GL
4	0	5350-00-221-0872	CLOTH, ABRASIVE: crocus (81348) PC-458 50 sheet package	SH

best copy available

(1) ITEM NUMBER	(2) LEVEL	(3) NATIONAL STOCK NUMBER	(4) DESCRIPTION	(5) U/M
5	0	8135-00-300-4905	CUSHIONING MATERIAL: (81348) PPP-C-1797	FT
6	0	8010-00-297-2124	ENAMEL: green (96906) MS-35530-2 1 gal can	GL
7	F	9150-00-190-0905	GREASE, AUTOMOTIVE AND ARTILLERY: (81349) MIL-G-10924 5 lb can	LB
8	0	9150-00-231-6689	LUBRICATING OIL, GENERAL PURPOSE: (81348) VV-L-800 1 qt can	QT
9	0	9150-00-292-9689	LUBRICATING OIL, WEAPON: (81349) MIL-L-14107 1 qt can	QT
10	0	8135-00-985-7242	PAPER, VOLATILE, PACKAGING: (81349) MIL-P-3420 36 in. wide, 100 ft roll	FT
11	0	8135-00-281-3920	PAPERBOARD, WRAPPING: (81348) PPP-P-291 24 in. wide, 250 ft long	FT
12	0	7920-00-205-1711	RAG, WIPING: (81348) DDD-R-30 50 lb bundle	LB
13	F	8030-00-181-7603	SEALING COMPOUND: type III (81349) MIL-R-46082 50 cc bottle	BT
13.1	F	8030-00-275-8110	SEALING COMPOUND: base compound and catalyst (81349) MIL-S-11031 1 qt can	KT
14	F	8030-00-900-4412	SEALING COMPOUND: blue, thick liquid (81349) MIL-S-22473 8 1/3 oz bottle	BT

(1) ITEM NUMBER	(2) LEVEL	(3) NATIONAL STOCK NUMBER	(4) DESCRIPTION	(5) U/M
15	0	7510-00-266-6712	TAPE, PS, MASKING: (81348) UU-T-106C 1 in. wide, 60 yd roll	YD
16	0	7510-00-297-6655	TAPE, PSA, PAPERBACK, WATER-RESISTANT: (81348) PPP-T-76 2 in. wide, 120 yd roll	YD
17	0	8010-00-087-1953	THINNER, SYNTHETIC: (81348) TTT-306 1 qt can	QT

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As Fig. B-3, items 5, 6, and 7 are coded as PCDZA, PADZZ and PADZZ.

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CHANGE

No. 3

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DEPARTMENT OF THE ARMY
Washington, D.C., 8 April 1988

Direct and General Support
Maintenance Manual
(Including Repair Parts and Special Tools List)
MORTAR, 60-MM, LIGHTWEIGHT COMPANY
M224
(1010-01-020-5626)

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Remove Pages	Insert Pages
2-6.1/(2-6.2 blank)	2-6.1/(2-6.2 blank)
2-9 and 2-10	2-9 and 2-10
B-1-1 through Figure B-4	B-1-1 through Figure B-4
I-1 through I-6	I-1 through I-6

3. File this change sheet in back of the publication for reference purposes.

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CHANGE
No. 2

HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington, DC 25 JULY 1986

Direct and General Support Maintenance Manual (Including Repair Parts and Special Tools List) MORTAR, 60-MM, LIGHTWEIGHT COMPANY M224 (1010-01-020-5626)

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None	a (b blank)
i and ii	i and ii
1-1 and 1-2	1-1 and 1-2
2-1 and 2-2	2-1 and 2-2
2-17 and 2-18	2-17 and 2-18
None	2-24.1 through 2-24.5(2-24.6 blank)
2-25 and 2-26	2-25 and 2-26
2-29 and 2-30	2-29(2-30 blank)
A-1 (A-2 blank)	A-1 (A-2 blank)
B-1 through B-31(B-32 blank)	B-1 through I-6

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2-15 through 2-20	2-15 through 2-20
2-25 through 2-28	2-25 through 2-28
2-35 and 2-36	2-35 and 2-36
B-5 through B-14	B-5 through B-14
C-1 and C-2	C-1 and C-2
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